LA 283
.R6
1915a
Copy 1

A Comparative Study of the Township District, Consolidated, Town and City Schools of Indiana

BY

LESTER BURTON ROGERS, A.M.

Professor of Education, Lawrence College

APPLETON, WISCONSIN

Research Scholar, Teachers College, 1910-11

SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF DOCTOR OF PHILOSOPHY, IN THE FACULTY OF PHILOSOPHY, COLUMBIA UNIVERSITY

The Collegiate Press
GEORGE BANTA PUBLISHING COMPANY
MENASHA, WISCONSIN

A Comparative Study of the Township District, Consolidated, Town and City Schools of Indiana

BY

LESTER BURTON ROGERS, A.M.

Professor of Education, Lawrence College

APPLETON, WISCONSIN

Research Scholar, Teachers College, 1910-11

SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF DOCTOR OF PHILOSOPHY, IN THE FACULTY OF PHILOSOPHY, COLUMBIA UNIVERSITY

The Collegiate Press
GEORGE BANTA PUBLISHING COMPANY
MENASHA, WISCONSIN

LA283
.R6
1915a

Copyright 1915
By Lester Burton Rogers

Gift
of University
MAR 4 1916

TABLE OF CONTENTS

CHAPTER I.—INTRODUCTION PAGE

1. Current opinions concerning rural education and consolidation. 2. Purpose of this investigation. 3. Selection and distribution of school corporations investigated. 4. Original data. 5. Definition of terms. 6. System of organization and administration. 7. Statistical method employed 1

CHAPTER II.—SCHOOL PLANTS

1. Basis for comparison. 2. Original data presented. 3. Comparison of the different types of schools. 4. Recent legislation relative to the sanitation of school buildings. 5. Standards applied to existing schools 14

CHAPTER III.—TEACHERS

1. Legal qualifications. 2. Sex. 3. Grade teachers; (a) Professional training, (b) Experience, (c) Classification and salary. 4. High School teachers; (a) Professional training, (b) Experience, (c) Salary. 5. Special teachers; (a) Number and distribution, (b) Salary.. 37

CHAPTER IV.—ENRICHMENT OF CURRICULA

1. The course of study as an index of the work of the school. 2. The state course of study. 3. Legal requirements. 4. Extent of the use of the state manual. 5. Local courses of study 73

CHAPTER V.—SUPERVISION

1. Supervisory staffs. 2. Nature and extent of the supervision of instruction. 3. Professional improvement of teachers in the service. 4. Medical inspection. 5. School and community activities 80

CHAPTER VI.—SCHOOL STATISTICS

1. Original data. 2. Changes in population. 3. School census. 4. Enrollment. 5. Average daily attendance. 6. Length of school year 92

CHAPTER VII.—SCHOOL FINANCES—RECEIPTS

1. Basis of support of schools. 2. Distribution of state tax. 3. Distribution of county and local levies and wealth per capita school population. 4. Relation of wealth per capita and tax levies. 5. Tuition receipts. 6. Distribution of the Common School Fund. 7. Results obtained by use of teacher-average-daily-attendance basis 103

CHAPTER VIII.—SCHOOL FINANCES—EXPENDITURES

1. Distribution of expenditures. 2. Relation of expenditures to wealth per capita and tax levies. 3. Distribution of expenditures in the corporations spending more than the average for the group 152

CHAPTER IX.—SUMMARY AND CONCLUSION

1. Application of facts revealed to the claims made for consolidated schools. 2. Needs for reorganization. 3. Suggestions for reorganization. 4. The effect of reorganization on the different types of schools. 5. Conclusion 201

LIST OF TABLES

TABLES		PAGE
I-IV	Buildings, sanitation and equipment in the four types of schools	15-26
V	Summary of statistics on school plants	28
VI-IX	Distribution of grade teachers on basis of sex, professional training, experience, rank and salary	40-47
X	Summary of distribution of grade teachers on basis of sex	48
XI	Summary of distribution of grade teachers on basis of professional training	49
XII	Percentile distribution of teachers on basis of training	49
XIII	Distribution of grade teachers on basis of experience	54
XIV	Percentile distribution of grade teachers in periods of years of experience	55
XV	Distribution of grade teachers on basis of rank and salary	55
XVI	Salaries of all grade teachers in the four types of schools compared with salaries in earlier years	56
XVII-XIX	Distribution of high school teachers on basis of sex, training, experience and salary	58-60
XX	Training of high school teachers	61
XXI	Percentile distribution of high school teachers on basis of training	61
XXII	Distribution of high school teachers on basis of experience	63
XXIII-XXIV	Distribution of high school teachers, including principals, on basis of salary	67-68
XXV	Special teachers and supervisors	70
XXVI	Salaries of special teachers	71
XXVII	Median salaries of grade, special, and high school teachers in the different types of schools	72
XXVIII	Courses of study used in different types of schools	76
XXIX	Number and per cent of schools offering the newer subjects	78
XXX	Supervision in the different types of schools	80
XXXI	Nature and extent of school and community activities	89
XXXII-XXXV	Population and school statistics for the four types of schools	93-96
XXXVI-XXXIX	Changes in population, and school statistics given in per cents	97-100
XL	Central tendencies and deviations in population and school statistics	101
XLI-XLIV	Property valuation and tax levies in the four types of corporations	106-111
XLV	Central tendencies and deviations in corporation wealth and tax levies	113

XLVI-XLIX	Wealth per capita school population and percentile distribution of tax levies	114-117
L	Central tendencies and deviations of wealth per capita, and tax levies on basis of per cent of total tax levies	119
LI-LIV	Data for comparison of wealth per capita and tax levies in the four types of corporations	121-122
LIVa	Quartile ratios of wealth per capita and tax levies in the four types of corporations	123
LV-LVIII	Sources and amounts of tuition receipts	124-127
LIX-LXII	Percentile distribution of tuition receipts	128-131
LXIII-LXVI	Distribution of tuition receipts on basis of number of pupils in average daily attendance	134-137
LXVII	Central tendencies and deviations in percentile distibution of tuition receipts	138
LXVIII	Central tendencies and deviations in tuition receipts on basis of amount received per pupil in average daily attendance	141
LXIX-LXXII	Data showing the effect of distribution of state funds on teacher-average-daily-attendance basis	142-145
LXXIII	Comparison of effect of teacher-average-daily-attendance basis of distribution on the four types of schools	148
LXXIV-LXXVII	Distribution of school expenditures	149-158
LXXVIII-LXXXI	Percentile distribution of school expenditures	159-175
LXXXII-LXXXV	Distribution of expenditures on basis of pupils in average daily attendance	176-183
LXXXVI	Central tendencies and deviations from central tendencies in distribution of school expenditures	184
LXXXVII-XC	Data for comparison of total cost per pupil to teachers' salaries, wealth per capita and tax levies	188-191
XCI	Relation of total cost per pupil to expenditures for teachers' salaries, wealth per capita and tax levies in the four types of schools	192
XCII-XCV	Distribution of excessive expenditures	195-198
XCVI	Comparison of excessive expenditures in the four types of schools	199

CHAPTER I

Introduction

Much is being written and more said concerning the limitations and deficiencies of the one-room district or rural school of today as compared with the efficiency of the township consolidated, town, and city schools. The question has provided subjects for many series of lectures, magazine articles, special reports by commissions and quite a number of books. All are agreed that the rural schools do not effectively meet the needs of country life but do not agree as to the changes that should be made in order that the desired results may be obtained. It is a case where the doctors disagree. One insists that the greatest need is a more modern and sanitary school plant, another prescribes better trained teachers, a third insists that an enriched course of study is the most imperative need, while a large percentage offer consolidation as a panacea for existing ills since all these other things will be assured as a natural result.

The attitude of a very large group of writers is illustrated by the following:

"The retention of the small one-room school as a local institution and as a land-mark is a worthy sentiment, but a sentiment much more worthy is that which would create a new rural school consecrated to a new principle in education and farm life and founded to endure through another period of national greatness until in a later generation, other wise men shall rebuild the educational structure again suited to their needs and their conditions. . . . . However useful and effective the small district was in its day, it is, in most localities, getting out of touch with present-day rural affairs and with the rural community." (G. W. Knorr—*A Study of Fifteen Consolidated Rural Schools,* p. 10.)

In speaking of the great advantages of the consolidated school over the one-room rural school the same writer in another bulletin (No. 232, U. S. Dept. of Agriculture) expresses himself as follows:

"The advantages of the new system are obvious: The fusion of a number of small districts into a larger administrative unit furnishes a stable and extensive basis for financing the school and thereby make for higher efficiency. The school, no longer seriously affected by fluctuations in school population, becomes an institution

with fixed location and belongings. An incentive is given to make permanent improvements, to beautify the school grounds, secure modern sanitation and provide ample schoolroom equipment. The large number of children assembled at a centrally located school makes possible graded classes and a better division of the school day. Studies can be introduced which require special equipment and specially trained teachers, such as agriculture, home economics, manual training, music—advantages almost unattainable in small district schools. These centrally located country-life schools, too, form convenient social centers for communities; local interests and activities affiliated with the schools, so that public use is frequently made of their commodious classrooms or auditoriums. Encouragement is given to the growth of literary and debating societies, social and agricultural clubs, grange meetings, reading circles, athletic and other competitives among pupils, and entertainments of various kinds. . . . . It was assimilated into the rural-school system as a result of observation and careful experiment, and fortunately lacked every element of a fad. It gains a foothold chiefly where civic ambition and high educational ideals establish high standards and determine to attain them."

Another writer (See *The American Rural School* by Foght) speaks of the efficiency of urban schools as follows:

"Graded schools, in cities and villages alike, have reached a stage of development or evolution so satisfactory that their future is practically assured. . . . . Secondary and higher education within our country have attained a satisfactory degree of excellency and efficiency."

While such generalizations as those quoted above may be true, they certainly would be given much greater consideration if based on something more than general observations. Furthermore, there seemed to be a tendency, and it still prevails to a certain extent, to assume that the city school has reached a high degree of perfection and is the standard by which the efficiency of the rural school is to be measured. If a rural school imitates the city school to a large extent in its organization and practices it is considered progressive and worthy of great commendation.

In the beginning of a new movement it is always necessary to theorize concerning the probable results, and in this regard the consolidated school is no exception. This, however, should not continue longer than is necessary for educational practice in har-

mony with the advanced theories to have continued for a sufficiently long period to provide data for a study of the results. The consolidated school has been in existence long enough to justify itself on this basis. If an investigation clearly shows that the consolidated school, on account of its organization and administration, is a much more efficient institution for the training of children than the one-room rural school and that the results of this better training are manifested through improved economic and social conditions of the community, there is no need for further discussion of the question; it is a time for decisive action. If, on the other hand, these results are lacking or are not sufficiently in evidence to offset the objections to consolidation, it means that there must be a more intensive study of the situation before the problems of rural education are solved satisfactorily.

With the development of the statistical and survey methods of investigation have come a number of studies which bear more or less directly on the problems of the rural schools. One of the most recent and intensive of these and one that is devoted entirely to rural education is that made by Dr. Burnham. (See his *Two Types of Rural Schools.*) In this he gives a careful survey of the economic and social conditions of the communities in which the schools are located before attempting an intensive study of the schools. His conclusions indicate that some of the generalizations concerning the merits of the consolidated schools based on general impressions are not well founded. This study is especially valuable in two respects. (a) It presents correlated data concerning the two types of rural schools. (b) The tables showing the relative standing of the two communities economically and socially, fail to reveal any pronounced advancement of the community in which the consolidated schools are located over the communities in which there are only the one-room rural school. In order to obtain perfectly reliable data, however, concerning the relative influence of the two types of schools on the community life, it would be necessary to secure correlated data for a period of years.

When considering one type of schools alone, it is difficult to estimate the true value of the different phases of the work. In order to see things in their true relationship it is necessary to have some basis for comparison. For example, one may emphasize the fact that a teacher in a consolidated school has only one grade to teach, but fail to observe that a pupil in the one-room rural school

is given more individual attention and has a greater opportunity to exercise his own initiative and originality. The same difficulty, in a little more complex form, is present when the rural situation is considered apart from the conditions and practices in the urban schools. There is a tendency to over-emphasize the deficiencies of the one and the excellencies of the other. While recognizing the fact that both the rural and urban schools have problems that are peculiarly their own, it is also true that in dealing with many of the larger phases of the work a comparative study is profitable. Such a comparative study will not only aid in seeing the rural situation in proper perspective, but may correct some of the misconceptions and reveal some of the needs of the urban schools.

Purpose

The efficiency of a school may be tested in two ways: either on a basis of results as seen in increased attendance, advanced standing of its graduates and the improved social conditions of the community in which the school is located, or on a basis of relative efficiency of the various parts of the organization and thus judge the efficiency of the whole as an institution for the right training of children. This study will approach the situation from the latter point of view, presenting correlated data of the four types of schools, the one-room township district school, the township consolidated school, the village or town school, and the city school of Indiana. An effort will be made to present correlated data that will reveal the exact condition of these four types of schools with reference to school plants, teachers, school population, attendance, curricula, supervision, revenue and expenditures, and to determine:—

(1) To what extent do the facts substantiate the claims made by the advocates for consolidation.

(2) Which of the advantages gained by consolidation are limited to this type of organization.

(3) To what extent is the present plan of organization and administration of consolidated schools applicable to the rural situation.

(4) The essentials in the reorganization and administration of all rural and town schools to insure equality of opportunity for all children of school age.

Selection and Distribution of School Corporations

Great care was taken to insure a random selection of the school corporations considered and to include only such schools as would clearly fall within the limitations of the four types indicated above. School corporations from twenty-five of the ninety-two counties of Indiana were selected as follows: It was first determined in what counties of the state were located consolidated schools that provided educational facilities for all of the children of the township (the township being the unit of taxation and administration), and were not united with the schools of a village or town. From such counties data were obtained for one township in which were only one-room rural schools, the township or townships in which there was complete consolidation in one or two buildings, the one town whose population was nearest one thousand, and a city, provided its population was greater than twenty-five hundred and did not exceed twenty thousand, if there were any such town and city within the county. The township selected was the first in each county, taken alphabetically, that met the required conditions, namely, that had only one-room district schools and had no town or city within its limits. (Two exceptions were discovered after the data were collected and work well under way. Such cases were omitted if exceptional in any respect.) In some cases where there were only a few schools in this township, a second was taken, in which case the last township on the list that met the requirements was selected. Since there were so few townships within the state in which the consolidated schools met the above conditions, it was found advisable to include the two townships that met the requirements in two counties and the three in the third. In all other cases not more than one township with consolidated schools is taken from any county. It sometimes happened that the records on file in the county offices were incomplete so that it was not possible to get the desired data for the towns and cities. In such cases the writer selected the nearest town or city in an adjoining county. The distribution of the counties in which are located the consolidated schools is quite wide, extending to almost every part of the state except the extreme northeastern and southern parts, though a greater number are to be found in the middle half than in the northern and southern fourths combined. In addition to the counties which had one or more townships with consolidated schools, a number of other counties were selected, so that the total number

of counties included in the study are as nearly equally distributed throughout the state as it is possible to select them. Only in cases of counties with consolidated schools do any two selected have a common boundary line.

Original Data

The first effort to secure the data for this study was made during the summer of 1911 while the writer was teaching in the Summer School of Indiana University. A blank, somewhat simpler in form than the one given below, was given at the close of the term, to members of classes in Secondary Education and sent to friends and fellow students who were located in the different counties throughout the state. The returns received varied so greatly and some were so incomplete that it was thought best to discard all except the returns from three counties. This experience was sufficient to show that any form of a questionnaire method would be inadequate for an investigation of this kind. The summer of 1912 and some time during the summer of 1913 was spent by the writer visiting cities, county seats, towns, and a few townships in the different counties, securing the material on which this investigation is based. The forms given below served as a guide in this work.

The information concerning buildings, equipment, sanitation, etc., was secured, for the cities, by personal observation and conferences with city superintendents; for towns and consolidated schools, by personal observation and conferences with the principals of the schools and county superintendents, and in a number of cases by correspondence as it frequently happened that the principals of these schools did not reside in the town or were away during the summer vacation; for townships, by personal observation in a few cases but usually by conference with the county superintendent and by some correspondence with some teacher in the township.

The information concerning teachers and supervision was secured from records in the offices of the county superintendent and by interviewing city, town and county superintendents. Where it was impossible to meet the superintendent personally the desired information was obtained through correspondence.

Records in the offices of the state superintendent of public instruction, county auditors, and county superintendents supplied the statistical and financial data. A complete transcript of the expenditures in each corporation was made and classified by the writer with the aid of one assistant, so that uniformity prevails throughout.

BUILDINGS, EQUIPMENT AND SANITATION

1. Number of buildings in use?..... Rooms in use?.....
2. Number of rooms heated by means of—
   a. Stoves?..... b. Stoves with jackets or screens?.....
   c. Furnace?..... d. Steam?..... e. Hot water?.....
   f. Direct - indirect system?.....
3. Number of rooms ventilated by means of—
   a. Doors and windows only?..... b. Some form of gravity system?..... c. Fan or force system?.....
4. Number of rooms lighted by windows on—
   a. One side only?..... b. Two adjacent sides?.....
   c. Two opposite sides?..... d. Three sides?.....
5. Number of rooms furnished with—
   a. Single non-adjustable desks?..... b. Single adjustable desks?..... c. Double non-adjustable desks?.....
   d. Double adjustable desks?.....
6. Number of buildings at which water is provided by means of—
   a. Pail and common drinking cup?..... b. Pail and individual drinking cups?..... c. Pump or faucet and common cup?..... d. Pump or faucet and individual cups?.....
   e. Drinking fountains?.....
7. Decorations.
   a. How often are the walls redecorated?.....
   b. What per cent of the rooms are provided with pictures?..... At public expense?..... Through efforts of teachers and pupils?.....
8. Sanitation.
   a. How often is the furniture and woodwork washed?.....
   b. How often are all marks, carvings, etc., removed and furniture revarnished?..... c. How often are the rooms disinfected?.....
   d. Are floors kept clean by means of a broom?..... Oil and brush?..... Mop?..... Vacuum cleaning system?.....
   e. Are toilets inside or outside of school building?..... Sanitary or unsanitary?..... Are they free from marks, carvings, etc.?.....
9. Libraries.
   a. Have you a public library maintained at public expense?.....
   b. Have you a library in school?..... Maintained at public expense?..... Through efforts of teacher and pupils?.....
   c. In what subjects have you supplementary books?.....

.....

TEACHERS

Number of—

Men teaching in	Women teaching in	Total in
Grades	Grades	Grades .....
High School	High School	High School .....
Special	Special	Special .....

GRADE TEACHERS

Name	Teaches what	Number of years (or weeks) in Present Position	Normal Training	College Training	Experience	Daily salary	Class A, B or C
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							

HIGH SCHOOL TEACHERS

1							
2							
3							
4							
5							
6							
7							
8							

SPECIAL TEACHERS

1							
2							
3							
4							

ADMINISTRATORS AND SUPERVISORS (NOT INCLUDED ABOVE)

1							
2							
3							
4							

SUPERVISION

Average number of visits made by the superintendent to each room during the year?..... Average length of each visit?.....

State, in order of importance, the purpose of such visitation.

a..... b.....

c..... d.....

e.....

Number of institutes held, in the corporation during the year?..... Teachers' meetings?..... Average length of each?..... Per cent of the time devoted to (a) routine work of school?..... (b) larger problems of education?..... Any other means of professional improvement of teachers and if so, what was nature of same?.....

Do you have medical inspection other than city or county Board of Health?..... How often?..... Dental inspection?..... How often?.....

STUDENT AND COMMUNITY ACTIVITIES

a—What student organization or activities in school? b—Number of meetings of each during the year? c—Per cent of students taking part in each?

a	b	c
.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....

Number of patrons' meetings held during the year?..... What social center activities carried on by the school and how often?.....

.....

COURSE OF STUDY

Do you use the "State Course of Study" in the grades?..... In the high school?..... If not, by whom formulated?.....
In what respects does it differ from the "State Course of Study"?.....

.....

Please indicate what work is done in the following subjects:—

	In what Grades?	No. of Lessons per Week?	Average Length of Periods?
a. Music	.....	.....	.....
b. Drawing	.....	.....	.....
c. Nature-study	.....	.....	.....
d. Agriculture	.....	.....	.....
e. Manual training	.....	.....	.....
f. Domestic Science	.....	.....	.....
g. Domestic Art	.....	.....	.....
h. Physical culture	.....	.....	.....
i. School gardens	.....	.....	.....
.....	.....	.....	.....

Have you a kindergarten in your school?..... If so, is it a part of public school system or maintained by philanthropic effort?.....
In what subjects do you have special supervisors?.....

.....

Definition of Terms

Since there may be some doubt as to what is meant by the different types of schools mentioned, it may be well to give the chief characteristics of each at this time. The term "city school" is used in this study to indicate the school in centers of population varying from twenty-five hundred to twenty thousand. The term "town" in Indiana has the same meaning as the term "village" in many other sections of the country. While the civic organization of a

town is more simple than that of the city, the school organization is practically the same in towns where an independent school as well as civic corporation is maintained, except that the head of the school is sometimes called a principal and devotes the larger part, if not his entire time, to teaching. The towns included in this investigation vary in population from five to fifteen hundred people and are limited to towns with independent school corporations, that is, not combined in any way with the organization of the township in which the town is located.

The unit of administration in rural affairs is the township or what is called "town" in some states such as Massachusetts and Wisconsin. The size of the township varies greatly, but the average area will be a little larger than the congressional township but the boundary lines by no means coincide with the boundary lines of the congressional township. The term "township consolidated school" is used to indicate the one centrally located school; sometimes there are more than one in a township, to which all the children of the township are transported, thus abandoning the one-room schools of that township. Only townships with complete consolidation are included in this study, since it would complicate matters very materially to include townships which have one or more one-room schools in addition to a consolidated school, since the township is the basis for statistical and financial reports and no distinction is made between the two types.

The Organization and Administrative System

The schools of Indiana are more centralized than in many states. The head of the system is the state superintendent of public instruction who is elected by popular vote and holds office for two years. The state superintendent and the state board of education, composed of the governor of the state, the state superintendent of public instruction, the president of the state university, the president of Purdue University, the president of the state normal school, the superintendents of the three largest city schools in the state and three citizens prominent in educational affairs, one of whom shall be a county superintendent, exercise control over the schools of the state.

While the state superintendent has jurisdiction over all the schools of the state it has been the practice of many superintendents to give much greater attention to rural school problems and thus

leave the city school problems to be worked out by the city school superintendent in his own way. Exceptions to this general statement occur when the state superintendent is emphasizing industrial education, sanitation, medical inspection, and other movements that affect both rural and urban schools. The problems the state superintendent wishes to be considered by teachers and school officials are brought to their attention by means of bulletins, reports, institute outlines, and through city and county superintendents.

The county superintendent has supervision over all the schools of his county except those located in cities and towns which maintain independent school corporations. The duties of the county superintendent specified by law are somewhat limited, consisting of holding examinations, granting county certificates, visiting all the schools of the county under his supervision at least once each year, making out a success grade for each teacher, conducting county and township institutes, making reports to the county board of commissioners and the state superintendent concerning educational matters in his county. The influence of the county superintendents varies greatly. Some are little more than clerks attending to the routine work of the office, while others, through their leadership and authority by virtue of their office, exercise much greater control and do much constructive work.

The city school is administered by a board of school trustees composed of three members appointed by the city council. This board employs the superintendent, principals and teachers, levies taxes, purchases supplies, determines when school shall open and the length of the school year, may uphold or rescind the action of the superintendent in the administration of the schools, etc. In many cities the superintendent is given great freedom in many of these matters as well as in determining the internal workings of the school. The tendency of the board in a few of the larger cities is to consider the superintendent an expert and competent to direct the work of the school in all its details and merely concern itself with the larger problems referred to them by the superintendent and with financial affairs. Unfortunately this attitude is not general. The smaller the city the more jealous the school board is of its prerogatives.

The administration of the town school is very similar to that of the city except that it is more simple and that the head of the school is little more than a regular teacher. He usually has nothing

to say in school affairs except in mere routine matters such as making out the schedule, attending to problems of discipline, etc.

The rural township schools, whether consolidated or one-room, are under the administration of the township trustee who has the three-fold duty of administration of schools, caring for the poor and looking after all public highways except macadam roads which are under the supervision of the county commissioners. School affairs require the greater portion of the time that is devoted to his official duties. He is responsible for the building of new school houses, keeping old buildings in repair, purchasing equipment and supplies, employing teachers, levying taxes, etc. The number of schools under the jurisdiction of the township trustee varies from one consolidated school with four teachers or three or four one-room schools to a number of consolidated schools with commissioned high schools or a great number of one-room schools. In some cases a trustee employs as many as four superintendents or principals of consolidated schools and thirty or more teachers. It should be added that the law provides for the election of a school director by the voters of a school district, who shall look after the repairing of the building, provide fuel, visit schools, suspend or expel incorrigible pupils, etc. If the voters of the district fail to elect such a school director at the time specified the trustee is to appoint some one in the district to fill this office. In actual practice, however, few such directors are to be found in the state, as the township trustee prefers to attend to all these matters himself. It gives him a certain prestige and an opportunity to increase his salary, but it may also mean economy to the township and a more equal distribution of funds for repairs and supplies.

Briefly summarized, Indiana has a state system of schools under the direction of the state superintendent of public instruction and state board of education. The smaller units of administration under the state organization in certain respects, are the city, town, and the county. The schools of cities and towns are administered by boards of school trustees and superintendents elected by them. The rural schools of the county are under the supervision of the county superintendent; the county, in turn, is divided into smaller units called townships for administrative purposes. At the head of each township is the township trustee. All financial and statistical reports of townships, towns, and cities are filed with the county superintendent who in turn compiles a report for the entire county which is forwarded to the state department.

Statistical Methods Employed

In making tabulations and computations, an effort has been made to use methods that are fair to all types of schools considered and to avoid technicalities as far as possible. In all tables that follow, except the first, it will be observed that the original data are given, followed by tables derived from the same that will give an adequate basis for comparison.

The average and median are used to indicate the central tendencies and the average deviation and quartile to express variabilities. The median, M, is a measure above and below which exactly fifty per cent of the cases lie. In data with fairly normal distribution in which we wish to retain the influence of all cases and to give due consideration to variations in the size of cases included, the average is a better index of the true character of each measure and was about as readily determined as the median, since computations were made by use of machines, mathematical tables, and slide rule wherever possible. The mean or average deviation, A D, is the sum of the deviations of the individual measures from the central tendency divided by the number of cases. The quartile, Q, was used more extensively than the average deviation. This is found by counting in from the lower end of the distribution twenty-five per cent of the cases and counting in from the higher end of the distribution twenty-five per cent of the cases. The two points found mark the limits of the middle fifty per cent, which is always a fairer index of characteristic groups than the total range of cases. Subtracting the lower from the higher value found and dividing the difference by two gives the quartile or variability in terms of unit of measure. Any individual case will probably fall within the limits of this variability when applied both above and below the median or average. Any reader wishing more detailed information concerning the statistical methods is referred to Thorndike's *Mental and Social Measurements,* or to Rusk's *Experimental Education.*

CHAPTER II

School Plants

It is somewhat difficult to find a basis for comparison of school plants that will not give a wrong impression of one or more of the types considered. The most common basis used has been the valuation of school property. In some cases attempts have been made to give valuation statistics meaning by showing the amount of money per capita school population is invested in school property. It is needless to say that these valuation statistics as given in most reports are of little value since the estimates are made by a great number of individuals with different attitudes and ideals of values, and with no common basis for judgment. Neither is there much, if any, relationship between the amount of money invested and ability of the corporation to pay; nor does it necessarily follow that a large expenditure means better accommodations and more modern conveniences. A very striking illustration of the last fact mentioned was observed in one of the towns of the state in which the school board, or rather one of the members who dominated the board, erected an expensive building according to his own architectural ideas and pecuniary inclinations. Some objections were made by members of the community which reached the state board of health. The result was, the building was condemned and had to be reconstructed before it could be used for school purposes.

From an educational point of view it is worth a great deal more to make a comparison on the basis of conformity to scientific principles of hygiene and sanitation than on the basis of valuation. The data hereafter presented were collected with this idea in mind. Most of the items call for information that could be given by anyone familiar with the situation with little variation on account of individual standards or bias, hence are fairly reliable. One or two items permit of some variation but are included to show tendencies rather than to give accurate information on the subject involved. The per cent basis has been used in all the tabulations so that comparisons may be made with little difficulty. The sum of all the items under each general heading such as "heating", etc., for each corporation or type of school equals one hundred per cent except under sanitation in which case there is an over-lapping since a number of schools reported two or more methods used in cleaning floors. After the complete tabulations of the data for the four types of schools studied will be found a table showing the summary and relative standings of the township district, township consolidated, town, and city schools.

TABLE I

Buildings, Sanitation and Equipment for Township District Schools

Number of township	Buildings in use	Rooms in use	Heating						Ventilation			Lighting				Desks		
			Per cent of rooms heated by stoves	Stoves with screens or air-jackets	Furnace	Steam	Hot-water	Direct-indirect system	Doors and windows only	Gravity system	Force or fan system	One side only	Two adjacent sides	Two opposite sides	Three sides	Single non-adjustable	Single adjustable	Double non-adjustable
1	4	5	100						100					100		100	5	
2	16	19	90		10				90	10		21		79		45		50
3	9	9	100						100					100				100
4	16	17	100						100				12	88		100		
5	5	6	100						100					100		100		
6	20	28	64						100			7	37	56		79	21	
7	8	8	100						100					100		100		
8	11	11	55	45					100					100		50		50
9	6	6	67	33					100						100	84		16
10	12	13	100						100				22	78		100		
11	7	7	100						100				100			100		
12	9	9	100						100				100			100		
13	8	8	100						100				12	75	13	50		50
14	4	4		100					100				25	75		25		75
15	4	4	100						100					100				100
16	8	9	100						100					100		100		
17	7	7		100					100				50	50		85		15
18	6	6	84						84	16		33		17	50	84		16
19	7	7	100						100					100		100		
20	5	6	33	16	.50				50	50			50	50		100		
21	7	7	100						100					100		43		57
22	13	13	54	46					92	8		15		15	60	85	15	
23	18	21	75	1.2	13				20	80		5	45	50		100		
24	7	8	87	13					100			13	37	50		95	5	
25	6	7	100						100					100		50		50
26	11	14	14	72	7	7			93	7		14	28	58		100		
27	10	11	100						100				19	81		100		
28	16	16	60	40					100			7		93		100		
29	7	7	43	57					100					100		45	10	45
30	6	6		100						100		17		83		100		

TABLE I (*Continued*)

Number of township	Drinking Water					Decorations				Sanitation		
	Pail and common cup	Pail and individual cups	Pump or faucet common cup	Pump or faucet individual cup	Drinking fountains	How often are walls decorated?	Per cent of rooms with pictures	Per cent provided at public expense	Per cent provided through efforts of school	Number of times per year woodwork, etc., is washed?	Marks, carvings, etc., removed and desks revarnished, how often?	Number times per year rooms disinfected?
1			100			Every 4 or 5 years	100		100	2	Never	?
2	21		79			New 4-5 years	Few		100	1	Never	?
3	100					Seldom	Few		100	1	Never	?
4	88		12			Never	Few		100	1	Never	?
5	100					Never	Few		100	1	Never	?
6			100			Yearly	100	50	50	1	Yearly	1
7	100					Never	?		100	1	Yearly	1
8	100					Irregular	?		100	1	Never	?
9	50		50			Irregular	?		100	1	Never	?
10				100		Every 2 years	20		100	1	Never	2
11			50	50		Every 2 years	Few		100	1	Seldom	1
12			50	50		Every 2 years	Few		100	1	Seldom	1
13	50	25		25		Seldom	100	50	50	1	Seldom	1
14			100			Never	60		100	1	Never	1
15			100			Never	Few		100	1	Never	?
16				100		?	100		100	1	Seldom	(Ex.)
17			100			Irregular			100	1	Seldom	1
18	50		50			Never	Few		100	1	Never	0
19			100			Irregular	Few		100	1	Never	1
20			100			Irregular	Few		100	1		1
21	14		86			?	10		100	1	?	1
22			100			Irregular	25		100	1	Never	?
23	15		85			Irregular	25		100	1	Never	?
24			75			Never	Few		100	1	Never	1
25			100			Every 5-6 years			100	1	Irregular	1
26	46		54			Every 2-3 years	30		100	1	?	
27			100			Irregular	?		100	1	Never	?
28			100			Irregular	?		100	1	Never	?
29				100		Every 3rd year	?		100	1	Seldom	?
30				100		Every 7th year	100		50	1	Yearly	1

TABLE I (*Continued*)

Number of township	Sanitation							Library				Reference Books
	Floor cleaned by use of				Toilets			Have you a public library?	Have you a school library?	Per cent of support from public funds	Per cent of support by school	In what subjects have you supplementary books?
	Broom	Oil or dust down and brush	Mop	Vacuum system	Outside or inside	Sanitary or unsanitary	Are they free from marks, carvings, etc.?					
1	100				Outside	Unsanitary	No		Yes	100		None
2		100			Outside	Unsanitary	No		Yes		100	None
3		100			Outside	Unsanitary	No		Yes		100	None
4	100				Outside	Unsanitary	No		Yes		100	None
5	100				Outside	Unsanitary	No		Yes		100	None
6	65	35			Out. 65-In. 35	Fairly	Yes		Yes		100	Read., Geog., Hist.
7	100						No		Yes		100	None
8	100				Outside	Unsanitary	No		No			None
9	100				Outside	Unsanitary	No		Yes		100	None
10	100				Outside	Unsanitary	No		75%		100	None
11	100				Outside	Unsanitary	No		?		100	None
12	100				Outside	Unsanitary	No		?		100	None
13	100				Outside	Unsanitary	No		Yes	20	80	Lit., History
14	100				Outside	Unsanitary	No		Yes		100	None
15	50	50			Outside	Fairly	No		Yes		100	None
16					Outside	Fairly	No		Yes		100	Read., Geog., Hist.
17		100			Outside	Unsanitary	No		Yes	50	50	None
18		100			Outside	Almost	No		Yes		100	None
19	100				Outside	Unsanitary	No		Yes	100		Few
20	100				Outside	Unsanitary	Yes		Yes	50	50	Reading
21	100				Outside	Sanitary			Yes		100	None
22		100			Outside	?	No		Yes	50	50	Reading
23		100			Outside	Unsanitary	No		Yes	80	20	?
24	100				Outside	Unsanitary	Almost		Yes	100		None
25	100				Outside	Unsanitary	Yes		Yes	100		?
26		100			Outside	Unsanitary	No		Yes	80	20	?
27		100			Outside	Sanitary	Yes		Yes		100	None
28		100			Outside	Unsanitary	No		Yes		100	None
29		100			Outside	Unsanitary	No		Yes	100		None
30	100				Outside	Sanitary	Yes		Yes	100		Hist., Arith., Geog.

TABLE II

BUILDINGS, SANITATION AND EQUIPMENT FOR CONSOLIDATED SCHOOLS

Number of township	Buildings in use	Rooms in use	Heating							Ventilation			Lighting				Desks		
			Per cent of rooms heated by stoves	Stoves with screens or air-jackets	Furnace	Steam	Hot-water	Direct-indirect system		Doors and windows only	Gravity system	Force or fan system	One side only	Two adjacent sides	Two opposite sides	Three sides	Single non-adjustable	Single adjustable	Double non-adjustable
1	1	5			100						100				100		100		
2	1	4				100					100		100					100	
3	1	8						100				100		100			100		
4	2	6			100						100			100			100		
5	1	8					100					100		100			100		
6	2	19				100					100			100				100	
7	2	15			46	54					100		46	54			80	20	
8	2	10			100							100		100			100		
9	1	6						100			100		33	67			80	20	
10	3	19				100					100		42	37	21		100		
11	1	8				100					100			100			100		
12	1	5				100					100		100				67	33	
13	1	6	16		84					16	84		16	84			100		
14	1	5			100					100			20	80			75	25	
15	1	5				100					100			100			100		
16	1	6			100	100				33	67						100		
17	1	6						100			100		67	33			80	20	

TABLE II (*Continued*)

Number of township	Drinking Water					Decorations				Sanitation		
	Pail and common cup.	Pail and individual cups	Pump or faucet common cup	Pump or faucet individual cup	Drinking fountains	How often are walls redecorated?	Per cent of rooms with pictures	Per cent provided at public expense	Per cent provided through efforts of school	Number of times per year wood-work, etc., is washed?	Marks, carvings, etc., removed and desks revarnished how often?	Number times per year rooms disinfected?
1				100		New bldg., never	80		100	1	When needed	
2			100			Every year	100		100	2	Every 2 years	
3					100	Never	100		100	1	Never	8
4					100	Never	None			1	Never	
5			100			Irregularly	?		100	1	Never	1
6					100	New building	60		100	1	Never	1
7			54	46		Irregularly	100		100	1	Yearly	2
8					100	Every 3 or 4 years	100		100	2-3	When needed	
9			100			Irregularly	100	50	50	1	Never	
10					100	Every 2 or 3 years	100		100	1	Every 2 years	1
11					100	Every 2 or 3 years	100		100	1	When needed	1
12					100	New building	100		100	1	Yearly	1
13				100			80		100	Every wk		2
14			50	50		Every 5 years	100		100	2	Never	2
15			100			New building	100			2	Never	2
16				100			100		100	1	Never	1
17					100	New building			100	2	?	2

TABLE II (*Continued*)

Number of township	Sanitation							Library				Reference Books
	Floors cleaned by use of				Toilets							
	Broom	Oil or dust down and brush	Mop	Vacuum system	Outside or inside	Sanitary or unsanitary	Are they free from marks, carvings, etc.?	Have you a public library?	Have you a school library?	Per cent of support from public funds	Per cent of support by school	In what subjects have you supplementary books?
1	100				Outside	No	Almost	No	Yes	100		
2	100				Outside	Almost	No	No	Yes	100		
3		100			Inside	Sanitary	Yes	No	Yes	100		Read., Geog., Hist.
4	33	67			Outside	No	No	No	Yes	100		
5	100							No	Yes	50	50	
6	100				Inside	Sanitary	Yes	No	Yes	50	50	
7		100			Inside	Sanitary	Yes	No	Yes	100		Read., Geog., H. S.
8					Inside	Sanitary	Yes	No	Yes	100		Read., Hist.
9	100				Outside	?	Almost	No	Yes		100	None
10	100				Inside	Sanitary	Almost	No	Yes	District	100	Hist., Geog., Read.
11	100				Inside	Sanitary	Yes	No	Yes	District	100	Hist., Geog., Read.
12	100				Inside	Sanitary	Yes	No	Yes	Reference books	100	Read., Hist., Geog.
13	100				Outside	Sanitary	Yes	No	Yes	20	80	In most H. S. subjects
14	100	100			Inside	Sanitary	Yes	No	Yes		100	H. S.—Hist., Algebra
15	100	100			Outside	Sanitary	Yes	No	Yes		100	1 and 2 grades
16	100				Outside	Unsanitary	No	No	Yes	100		Reading
17		100			Inside	Sanitary	Yes	No	Yes	100		Read., Hist.

TABLE III

Buildings, Sanitation and Equipment for Town Schools

Number of town	Buildings in use	Rooms in use	Heating							Ventilation			Lighting				Desks		
			Per cent of rooms heated by stoves	Stoves with screens or air-jackets	Furnace	Steam	Hot-water	Direct-indirect system		Doors and windows only	Gravity system	Force or fan system	One side only	Two adjacent sides	Two opposite sides	Three sides	Single non-adjustable	Single adjustable	Double non-adjustable
1	1	10	10	100	90					10	90			100			100		
2	1	7		100						100			50	50			50		50
3	1	8	20			80				63	37		13	75		12	100		
4	1	9			100					100				87		13		100	
5	1	11						100			100		81	19			100		
6	1	4		100							100			75		25	50		50
7	1	8						100				100	100				100		
8	1	7			100						100			86		14	100		
9	1	10			100							100		60	40		90	10	
10	2	6	33			67				100			67		33		100		
11	2	6		100						100			20	80				20	80
12	1	7				100				100				86		14	100		
13	1	8				100					100		100				100		
14	2	12			100						100			92		8	100		
15	2	10			100						100			100			100		
16	2	17					100				100		45	55			100		
17	1	11	9			91				9	91		9	82		9	82	9	9
18	2	16	6		58		36			36	64			87		13	94	6	
19	1	11						100				100	100				66	34	
20	2	22						100			100		52	84			81	19	
21	1	5			100						100			80		20	100		
22	1	8				100					100			75	25		100		
23	2	11			100							100		40	20	40	100		
24	1	6				100				100			60	40			100		
25	2	20	75			25				100				100			100		

TABLE III (*Continued*)

Drinking Water						Decoration				Sanitation		
Number of town	Pail and common cup	Pail and individual cups	Pump or faucet common cup	Pump or faucet individual cups	Drinking fountains	How often are walls redecorated?	Per cent of rooms with pictures	Per cent provided at public expense	Per cent provided through efforts of school	Number of times per year woodwork, etc., is washed?	Marks, carvings, etc., removed and desks revarnished, how often?	Disinfected, how often?
1				100		Every 5-6 years	50		100	Every year	Never	
2				100		Every 3 years	50		100	1	Every 3 years	2
3				100		Seldom	65		100	2	1	1
4		100				Yearly	100		100	Monthly	1	3
5				45	55		100		100	2		
6			100			Never	75		100	4	Never	1
7					100		50		100	1		1
8					100	1	100		100	2	Irregularly	
9				100		2	25		100	1	3	2
10			33		67	3					Never	
11			100			Irregularly	100		100	Seldom	Irregularly	
12				100		Every 10 years	100		100	1	Every 10 years	1
13		100				1	86		100	1	Never	1
14				60	40	Never	100		100	3	1	2
15					100	Yearly	100		100	2	1	2
16					100	Every 5 years	100		100	18	No marks	2
17			9		91	Irregularly	50		100	1	Every 3 years	1
18	45		55			Irregularly	100		100	1	?	1
17					100	New Building	100		100			
20					100	Every 3-5 years	100		100	2	1	4
21			100			Seldom	Few		100	1	Never	1
22			100				100		100	2	Seldom	1
23					100	Every 3 years	100		100	6	1	2
24			100			Seldom	100		100	1		
25			100			Irregularly	100		100	1		1

Table III (*Continued*)

Number of town	Sanitation							Library				Reference Books
	Floor cleaned by use of				Toilets			Have you a public library?	Have you a school library?	Per cent of support from public funds	Per cent of support through efforts of school	In what subjects have you supplementary books?
	Broom	Oil or dust down and brush	Mop	Vacuum system	Outside or inside	Sanitary or unsanitary	Are they free from marks, carvings, etc.?					
1		100			Inside	?	No		Yes		100	
2	100				Outside	Unsanitary	No	No	Yes		100	H. S. Subjects
3		100			Outside	Unsanitary	Yes	No	Yes		100	Hist., Geog., Science
4	100		100		Inside	Unsanitary	Yes	Yes	Yes		100	All subjects
5		100			Outside	Unsanitary	No		Yes	100		
6	100				Outside	Sanitary	Yes	No	Yes		100	None
7	100	100			Inside	Sanitary	Yes	No	Yes	50	50	Read., Hist., H. S. Subjects
8	100				Inside	Sanitary	Almost	No	Yes		100	All grades
9		100			Inside	Sanitary	Yes	No	Yes		100	Read., Geog., Nature
10	100				Outside	Unsanitary	No	No			100	
11	100				Outside	Unsanitary	No					
12	100				Outside	Almost	Yes	No	Yes		100	Most grades
13	100	100			Outside	Sanitary	Yes	No	Yes		100	H. S. Subjects
14		100			Outside-Inside	Unsanitary	Yes	No	Yes	50	50	Read., Hist., H. S. Subjects
15		100			Inside	Unsanitary	Yes	No	Yes		50	H. S. Subjects
16	100	100	100		Inside	Unsanitary	Yes	Yes	Yes		100	Geog., Hist., Nature, Indus.
17		100			Both	Both	Yes	Yes	Yes		100	
18	100								Yes	50	50	
19		100			Inside	Sanitary	Yes	Yes	Yes	100		H. S. Subjects
20	100	100	100		Inside	Sanitary	Yes	No	Yes		100	Read., Hist., Geog., H. S. Subjects
21	100	100			Outside	Unsanitary	No	No	Yes		100	None
22	100	100	100		Outside	Sanitary	No	No	Yes	50	50	All Grades
23		100	100		Outside	Sanitary	Almost	Yes	Yes	100		Reading
24					Outside	Unsanitary	No	No	Yes		100	
25								No	Yes		100	All Grades

TABLE IV

Buildings, Sanitation and Equipment, for City Schools

Number of city	Buildings in use	Rooms in use	Heating						Ventilation			Lighting				Desks		
			Per cent of rooms heated by stoves	Stoves with screens or air-jackets	Furnace	Steam	Hot-water	Direct-indirect system	Doors and windows only	Gravity system	Force or fan system	One side only	Two adjacent sides	Two opposite sides	Three sides	Single non-adjustable	Single adjustable	Double non-adjustable
1	5	25		4	96				4	16	80		96	4		92	4	
2	2	28			29	71				100		29	71			100		
3	7	60	10	33	36.3	50.3			45.4	36.3	18.3	41.6	36.7	11	10	100	?	
4	7	56		12	12	76			12	63	25	10	70		20	68	10	28
5	4	40			55			45	15	40	45		85	12	3	95	5	
6	8	35		12		33		55	12	33	55	45	45	8	3	80	20	
7	7	40				100				85	15	20	80			90	10	
8	2	16			100					50	50	20	80			100		
9	7	49			52			48		52	48	7	65	25		95	5	
10	3	30				100				100		14	65	31		80	20	
11	2	16				100				100		25	75			50	50	
12	6	56		64	36				64	36			96		4	100		
13	9	80	3		97				62	64	30	26	68	3	3	80	20	
14	5	50			20	80				20	80	60	40			60	40	
15	3	23					100			100			100			100		
16	4	29				100				100		28	30	28	14	100		
17	4	30			77	23				47	53	27	70		3	93	7	
18	2	17	6			94			6	94		47	47	6		100		
19	4	27			89	94				100		11	89			89	7	
20	4	30	7		46			47	7	46	47	48	45	7		100		
21	3	34			12	88			26	74			100			100		
22	2	22			28	72				100			100			95	5	
23	4	40	15		100					100		20	80			100		
24	4	28			55	30			15	55	30		100			96	4	

TABLE IV (*Continued*)

Drinking Water						Decoration				Sanitation		
Number of city	Pail and common cup	Pail and individual cups	Pump and common cup	Pump or faucet and individual cups	Drinking fountains	How often are walls decorated?	Per cent of rooms with pictures	Per cent provided at public expense	Per cent provided by efforts of school	Number of time per year woodwork etc. is washed	Marks, carvings, etc. removed and desks revarnished, how often?	Number times per year rooms disinfected?
1					100	Every 5 or 6 years	80	80		1	Not often	1
2			29		71	Every 5 or 6 years	90		90	2	Never	1
3		3 .3		3 .3	93.3	Every 5 years	100		100	9	Every 3 years	9
4					100	Kept in shape	100		100	2	Yearly	2
5					100		100	20	80	Irregular	Irregularly	1
6					85		100	50	50	2	Seldom	2
7					100	Every 3 years	100		100	1	Yearly	1
8					100	Kept in shape	75		100	1	Every 2 years	2
9					100	Kept in shape	90	50	50	2	Irregularly	2
10					100	When needed	100	100		2	Every year	2
11					100	Every 2 years	100	20	80	1	Every 2 years	1
12			33		67	Irregularly	50		100	1	Irregularly	1
13					100	Irregularly	100	100		1	Every year	1
14					100	Irregularly	100	35	65	2	Every year	2
15			100			Irregularly	80		100	1	Never	1
16					100	Every 3 years	80		100	2	Every 2 years	1
17					100	Every 4-6 years	100		100	3	Every year	3
18			6		94	Every 5-6 years	80		100	2	Never	1
19					100	Every 3 years			100	2	Every year	2
20					100	Irregularly	80		100	1	Never	
21			65		33	Every 5 years	98		100	2	Every 3 years	4
22			28		72	Irregularly			100	1		
23					100	Every 3 years	80		100	1	Never	1
24					100	When needed	100		100	3	Every year	1

TABLE IV (*Continued*)

Number of city	Sanitation							Library				Reference Books
	Floor cleaned by use of				Toilets							
	Broom	Oil or dust down and brush	Mop	Vacuum system	Outside or inside	Sanitary or unsanitary	Are they free from marks, carvings, etc.	Have you a public library?	Have you a school library?	Per cent of support from public funds	Per cent of support through efforts of school	In what subjects have you supplementary books?
1		Yes			Inside	Sanitary	No	Yes	Yes	Yes		Reading
2		29	71		Inside	Sanitary	No	No	Yes	50	50	Reading
3		100			Both	Sanitary	Yes	Yes	H S		100	Read., Hist., Geog., Arith.
4		100			Inside	Sanitary	Yes	Yes	Yes	100		Read., H. S.
5		100	100		Inside	Sanitary	Yes	Yes	Yes		100	Read., Geog.
6	40	60			Inside	Sanitary	Yes	Yes	Yes	100		Hist., Civics
7		100			Inside	Sanitary	Yes	Yes	Yes	100		Read., Geog.
8		100			Inside	Sanitary	Yes	Yes	Yes	50	50	Read., Geog., Hist.
9		100			Inside	Sanitary	No	Yes	Yes	100		Read., Geog.
10					Inside	Sanitary	Yes	Yes	Yes	100		Read., Hist.
11		100			Inside	Sanitary	Yes	No	Yes	100		Read., German in grades
12	40	60			20-30	20-30	No	No	Yes	50	50	Reading
13		100			Inside	Sanitary	No	Yes	Yes	60	40	Read., Hist., Geog.
14		60	1 Year	40	Inside	Sanitary	No	Yes	Yes	100		All grades
15		100			Inside	Unsanitary	No	No	Yes	100		Reading
16		100			Inside	Sanitary	Yes	No	Yes	100		Reading
17	100		100		Inside	Sanitary	Almost	Yes	Yes	100		All Subjects
18		100			Inside	Sanitary	No	N o	Yes		100	Read., Geog.
19		100			Inside	Sanitary	Almost		Yes	50	50	
20					Inside	Sanitary	Almost			H S	Graded	
21		100	100		Inside	Sanitary	Yes	Yes				All subjects
22		100			Inside	Sanitary	Yes	Yes	Yes		100	
23		80	20		Inside	Sanitary	No	Yes	Yes		100	Read., Hist.
24		80	20		Inside	Sanitary	Yes	Yes	Yes	50	50	Reading

The foregoing summary is almost self-explanatory. It reveals at once that the predominating type of school buildings for township district schools is the small rectangular structure with the entrance at one end, lighted on opposite sides and heated by a common wood or coal stove located in the center of the room. It is needless to say that in such buildings there are no ventilating systems; and it may be added that none are needed in many of them since the openings about the doors and windows and the holes in the ceilings provide adequate circulation of air. The heating problem is a more vital one in cold weather. Another type of one-room buildings for rural schools is a slight modification of the type described above. Instead of the entrance being at the end and directly into the schoolroom, it is at one side which makes it necessary for the pupils to pass through a small cloakroom before entering the schoolroom proper. These buildings are usually lighted on three sides but in all other respects they are very similar to the small rectangular buildings.

A few of the newer buildings, however, reveal the fact that this old type of architecture is passing away and that an effort is being made in some localities to construct buildings on a more scientific plan. Two buildings in one township were constructed on plans approved by the secretary of the state board of health. The buildings were provided with basements in which were a furnace room, a fuel room, and a play room. These buildings were lighted on one side only. The cloakrooms were lighted and heated also. The furnace took the air from the outside of the building so that there was good ventilation. In all respects they were quite modern. Such buildings show that it is possible to construct one-room buildings on hygienic and sanitary principles as well as the larger consolidated school buildings.

Since the movement for consolidated schools is comparatively recent, it is to be expected that the buildings will be more modern than found in the township district schools. In fact the difference is so great that there is little basis for comparison in methods of heating and ventilating. By referring to Table v it will be observed that the buildings for consolidated schools more nearly conform to the established standards for heating, lighting, and ventilating than do the city school buildings and are decidedly superior to those found in the towns. The consolidated schools are provided with twice as many adjustable seats as the city schools and nearly three times as

TABLE V

Summary of Statistics on Buildings, Sanitation and Equipment

	Heating						Ventilation			Lighting				Seating			
	Per cent of rooms heated by stoves	Stoves with screens or air-jackets	Furnace	Steam	Hot-water	Direct-indirect	Doors and windows only	Gravity system	Fan or force system	One side only	Two adjacent sides	Two opposite sides	Three sides	Single non-adjustable	Single adjustable	Double non-adjustable	Double adjustable
Township	74.2	21.1	4.4	.2			91.0	9.0		4.4	17.9	70.3	7.4	77.3	1.9	20.8	
Consolidated	.9		35.0	41.8	5.6	16.7	8.8	73.6	17.6	26.9	66.0	7.1		81.3	18.7		
Town	6.1	12.0	34.0	26.4	5.5	16.0	32.7	51.3	16.0	27.9	60.7	4.7	6.7	91.5	7.9	7.6	
City	1.7	4	39.3	42.8	4.1	8.1	8.8	67.1	24.0	19.9	72.4	5.2	2.5	90.0	9.0	1.0	

TABLE V (*Continued*)

	Drinking Water					Sanitation												
						Furniture Washed			Marks Removed				Floors Cleaned with				Toilets	
	Pail and common cup	Pail and individual cups	Pump or faucet and common cup	Pump or faucet and individual cup	Drinking fountain	Once each year	Twice each year	More frequently	Once each year	Every two years	Irregularly	Never	Broom	Oil or dust-down and brush	Mop	Vacuum system	Per cent within school building	Per cent without school building
Township	24.4	.8	56.4	18.3		96.7	3.3		7.0		13.3	79.7	90.5	9.5				100
Consolidated			29.6	23.4	47.0	64.7	29.3	6.0	11.8	11.8	23.0	53.4	43.1	62.7			52.9	47.1
Town	1.8	8.0	27.8	24.1	38.1	48.0	24.0	28.0	30.0		40.0	30.0	56.0	60.0	20.0		40.0	60.0
City		.1	10.9	.7	88.3	41.7	41.7	16.6	33.3	12.5	33.3	20.8	7.5	79.5	12.9		99.2	.8

TABLE V (*Continued*)

	Sanitation			Decorations										Libraries				
	Toilets			Walls Redecorated							Pictures							
	Per cent Sanitary	Per cent unsanitary	Per cent free from marks	New building	Every year	Every 2-3 years	Every 3-4 years	Every 5-6 years	Irregularly	Never	Per cent of rooms with pictures	Per cent of expense by public	Per cent of expense by teacher and pupils	Per cent of schools with public library facilities	Per cent of schools with school libraries	Per cent of expense from public funds	Per cent of expense through efforts by teacher and pupils	Per cent of schools with supplementary books
Township	13.3	86.7	16.6	3.3	3.3	6.7	10.0	10.0	33.3	33.3	25.1	5.0	95.0	0	89	31.0	69.0	13.3
Consolidated	64.7	35.3	58.8	29.4	11.7	5.9	11.7		17.6	23.5	71.7	3.2	96.8	0	100	43.3	56.7	64.7
Town	40.0	60.0	52.0	4.0	13.0	8.0	13.0	13.0	40.0	12.0	78.0	0	100.0	12	100	22.0	78.0	60.0
City	95.7	4.3	48.9		8.3	16.7	37.5	16.7	20.9		82.4	19.8	80.2	76	100	63.7	36.3	87.0

many as the town schools, while very few adjustable seats are to be found in the township district schools. No double seats are to be found in the consolidated schools while a few are to be found in city schools, usually in some remote one-room building. Seven per cent in town schools and about twenty-nine per cent in the township district schools are equipped with desks of this type. The table shows that about twenty per cent of the township district schools are provided with sanitary drinking facilities as compared with seventy per cent of the consolidated schools, seventy-eight per cent of the town schools and eighty-one per cent of the city schools.

The data concerning decorations are not so reliable as that which we have been considering but indicate that little or no attention is given to the walls in sixty-seven per cent of the township district schools and fifty-two per cent of the town schools as compared with forty-one per cent of the township consolidated schools and twenty per cent of the city schools. Very few pictures are to be found in the township district schools and it is only in the city schools that the matter is considered of sufficient importance to lead the school officials to appropriate public funds for the purchase of pictures. Practically the entire expense for pictures in town, consolidated, and township district schools is met by the efforts of the teachers and pupils. All except about ten per cent of the township district schools are provided with school libraries. The most that can be said from the data at hand is that some attention is being given to reading outside of textbooks. It may be safely added from general observation that the libraries in all except the larger city schools consist, for the most part, of books selected from the Young People's Reading Circle and a few reference books in the high school subjects. In the matter of public support of libraries it will be observed that the town schools rank lowest with twenty-two per cent of the cost of maintenance being borne by the public as compared with thirty-one per cent in the township district schools, forty-three per cent in the consolidated schools, and sixty-nine per cent in the city schools. Few supplementary books are to be found in the one-room rural schools, while the consolidated and town schools rank about the same in this regard and the city schools are fairly well supplied. Reading is the one subject for which supplementary books are most frequently reported. History ranks second and geography third.

The data concerning sanitation reveals nothing new in regard to the township district schools but show that there is room for decided improvement along some lines in both the town and city schools. The township district buildings are usually cleaned just before the opening of school at which time the floors are scrubbed and the woodwork washed, but little or no effort is made to remove the marks, carvings, etc., from the desks. This one cleaning ends the efforts for the year unless there is an epidemic in the school in which case the building is thoroughly cleaned and disinfected. Some of the floors are oiled at the beginning of the school year and some form of "dustdown" and brush is used in ten per cent of the buildings, while the broom continues to hold sway in all other buildings. Only thirteen per cent of the toilets are reported as sanitary and sixteen per cent free from marks and carvings. Much more consideration is given sanitation in the consolidated schools than in the rural schools just considered. Thirty-five per cent of the consolidated school buildings are cleaned more frequently than once each year; twenty-five per cent of the desks are kept free from all marks and carving and an effort is made in sixty-three per cent of the buildings to clean the floors by some method that will eliminate the dust. Fifty-three per cent of the toilets of the consolidated schools are located within the buildings, which indicates that these buildings have water systems of their own which provide water for all school purposes. Usually these buildings are equipped with gasoline engines which are used to run the ventilating systems during the regular school hours and to pump water into pressure tanks at other times when needed. This is an excellent showing when compared with what we find in the town schools where only forty per cent of toilets are located within the school buildings. Sixty-five per cent are reported as sanitary in the consolidated schools as compared with forty per cent in the town schools. Fifty-nine per cent are free from all marks and carvings as compared with fifty-two per cent in the town schools and forty-nine per cent in the city schools.

Recent Legislation

Prior to 1911 there was little direct legislation concerning the sanitation of school buildings though some control was exercised by the state and county boards of health. The assembly of 1911-1912 passed a number of laws requiring all buildings erected or

remodeled to be constructed according to certain hygienic and sanitary specifications. A digest of these laws is given after which an effort will be made to show how these laws will affect the different types of schools we have been considering.

Sites. The sites shall be dry and well drained; not nearer than 500 feet to a railroad, livery, or other stable used for breeding purposes, or "any noise-making industry, or any unhealthful condition". Dry walks from street or road to school building and to all outbuildings and suitable playgrounds must be provided.

Buildings. If it is a brick building it shall have a foundation of stone or a layer of non-absorbing material above the ground line. Every two-story school building shall have a well-lighted basement with concrete floor and a ceiling not less than ten feet high, under the entire building. The ground floor must be at least three feet above the ground level and the area between the ground and floor well ventilated. Each pupil shall be provided with not less than 275 cubic feet of space and the interior walls painted or tinted some natural color as gray, slate, buff, or green.

Lighting. All schoolrooms used for study shall be lighted on one side only and the glass area shall not be less than one-sixth of floor area and the windows shall extend from not less than four feet from the floor to at least one foot from the ceiling. All windows shall be provided with adjustable shades of natural color.

Seating. Adjustable seats and desks are recommended and twenty per cent in each room required to be adjustable. They shall be so arranged that the light will fall over the left shoulder of right-handed pupils and over the right shoulder of left-handed pupils.

Blackboards. Blackboards shall be preferably of slate, but of whatever material, the color shall be a dead black.

Cloakrooms. Well-lighted, warmed and ventilated cloakrooms, or sanitary lockers, shall be provided for each study schoolroom.

Water Supply. All school houses shall be provided with pure drinking water which shall be supplied from driven wells or other source, approved by the health authorities. Only smooth stout glass or enameled metal cups shall be used. All pumps shall be supplied with drains to take away the waste water. No pools shall be allowed about the well. Water buckets and tin drinking cups are unlawful and forbidden. Drinking fountains are recommended and required if practicable. "When water is not supplied at pumps or water

faucets or sanitary drinking fountains, then covered tanks or coolers supplied with spring or self-closing faucet shall be provided." (A later law prohibits the use of common drinking cups.)

Heating and Ventilating. Ventilating heating stoves, furnaces and heaters of all kinds shall be capable of maintaining a temperature of 70 degrees Fahrenheit in zero weather and of maintaining a relative humidity of at least forty per cent. All heaters shall take air from outside the building and after heating, introduce it into the schoolroom at a point not less than five feet nor more than seven feet from the floor and at a minimum rate of thirty cubic feet per minute for each pupil, regardless of outside conditions. (An exception is made for the direct-indirect system of heating.) All halls, cloakrooms, laboratories, etc., must be heated. Direct steam heating is forbidden. All rooms must be provided with ventilating ducts of ample size to withdraw the air at least four times every hour and said ducts must be on the same side of the room with the hot air ducts.

Toilets. Water-closets or dry closets when provided shall be efficient and sanitary in every respect, detailed specification being given. Good dry walks shall lead to all outhouses. Screen or shields must be provided.

Cleaning and Disinfecting. All school houses shall be well cleaned and disinfected each year before they are used for school purposes. The cleaning shall consist in first sweeping, then scrubbing the floors, washing the windows and wooden parts of seats and desks. The disinfecting shall be done in accordance with the rules of the state board of health.

The penalty for the violation of above law is a fine in any sum not less than one hundred dollars and not more than five hundred dollars; and any money claim for material entering into or any money claim for the construction of any schoolhouse, which does not in every way and in all respects comply with the requirements specified, shall be null and void.

A graphic representation of the extent to which the present school plants in the different types of school corporations measure up to the requirements summarized above is given in Figure 1. It will be observed that the buildings for consolidated schools equal or surpass buildings for all other types in all requirements except water supply and toilets and second only to cities in these particu-

lars. In the one item, that of lighting, in which all schools of each type might have been made to measure up to hygienic requirements without additional expense is the one in which all show greatest deficiency. The enforcement of these laws will result in a radical change in the architecture for rural schools.

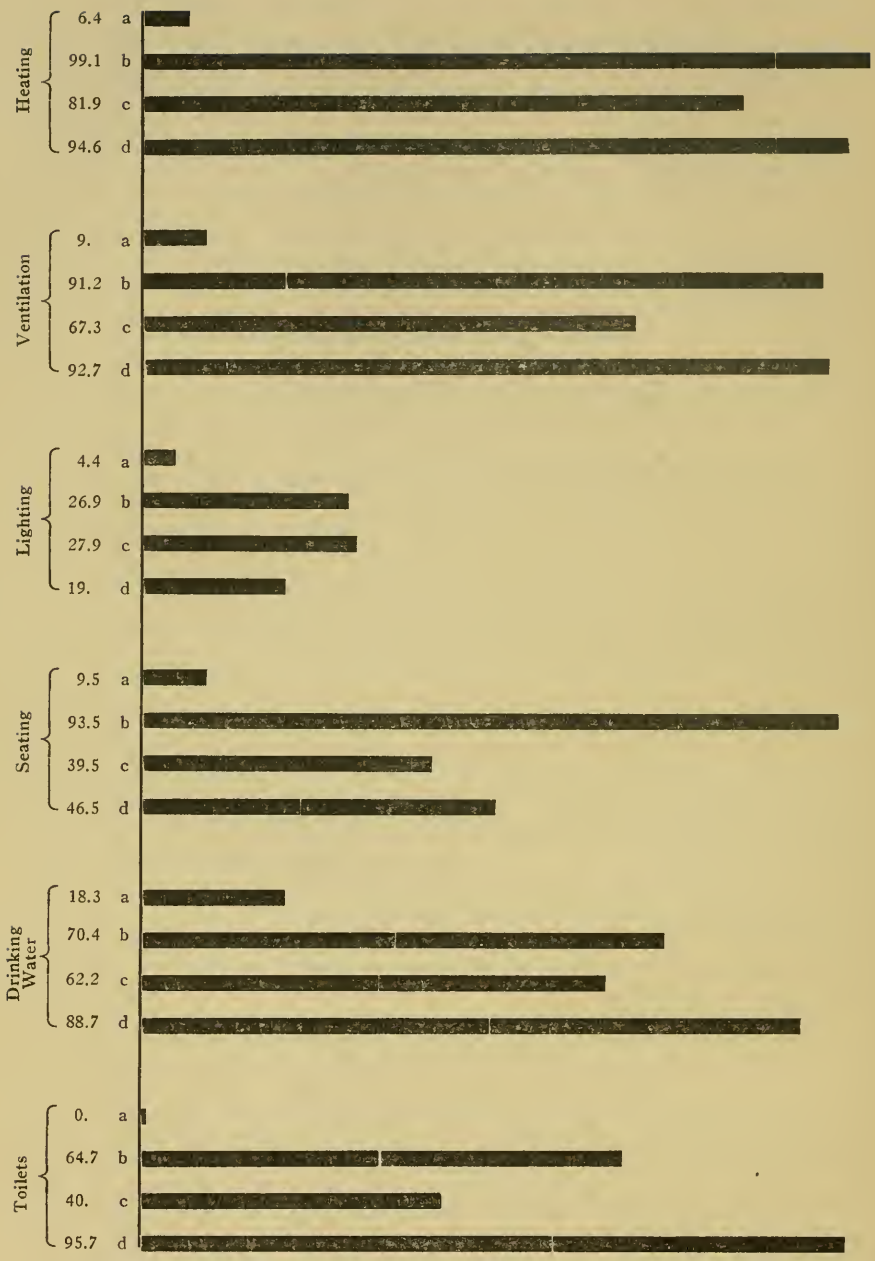


FIGURE 1. A chart showing what per cent of the schools of each type studied, measure up to the standard set by recent legislation. a—township district schools; b—township consolidated schools; c—town schools; d—city schools.

CHAPTER III

Distribution of Teachers on Basis of Sex, Training, Experience, and Salary

While the only true measure of efficiency of the teaching force of a school system is to be determined by testing the results before and after a period of instruction, we do know, as has been shown by investigations that have been made, that there is a correlation between the training and experience of the teachers in a system of schools and the ability of these teachers to do effective work. It will be necessary, however, before attempting to give the distribution of teachers on basis of training, experience, and salary, in the four types of schools studied, to indicate briefly the conditions and legislation that have led to the present situation in order to have a basis for a rational interpretation of the facts presented.

Prior to 1894 no academic or professional training was required of teachers other than the ability to pass an examination in the "Common School Branches" and "Theory and Art of Teaching". It was no unusual occurrence for a boy or girl from the common or elementary school, to study the "Teachers' Reading Circle" books on which the questions in theory and art of teaching were based, and to pass an examination which permitted him or her to teach in the elementary schools of the state without having had any training beyond the eighth grade. There was a law requiring applicants to be eighteen years of age before they could be granted a certificate, but it was no unusual thing to find beginning teachers who were only sixteen and seventeen years of age. Before any legislative measures had been enacted requiring teachers to have had some academic and professional training, some county superintendents attempted to raise the standard of scholarship of the teachers by being more stringent in grading the manuscripts of applicants for certificates and thus caused beginning as well as experienced teachers to attend some normal school or college during the spring or summer terms. In a similar manner some of the more aggressive city superintendents encouraged many of their teachers to attend the summer sessions of normal schools and colleges by promises of promotion and increase of salaries on the one hand, or threatened dismissal on the other, but such efforts were spasmodic and not far-reaching. Under these conditions the natural result was that

the cities with their longer terms of school, better conditions for work and higher salaries, would have a larger and superior group from which to select their teachers than the schools in the rural communities.

The first step to remedy the situation was taken in 1898 by the passage of a minimum salary law whereby the salary a teacher received was determined by the grade of certificate held. The grade of certificate of a beginning teacher was determined by scholarship alone, while that of an experienced teacher was determined by scholarship and a "success grade" given by county or city superintendent. A teacher holding a twelve months' certificate received a salary per diem equal to two and one-fourth cents multiplied by the average scholarship attained in all subjects in which the teacher was required to pass an examination, or in the case of an experienced teacher, the salary per diem was determined by multiplying two and one-fourth cents by his general average, that is the average of average scholarship and "success grade". A teacher holding a twenty-four months' certificate received a salary per diem equal to two and one-half cents multiplied by his general average, and a teacher holding a thirty-six months' certificate received a daily salary equal to two and three-fourths cents multiplied by his general average. The effect of this legislation was to eliminate the six-months' or trial license on which many beginning teachers had been teaching and to stimulate scholastic attainment among all teachers. It also caused the rural teachers to be paid the same salary per month as the city teachers since very few cities paid more at that time than the minimum salary specified by law.

A higher scholastic attainment and more specific professional training was required of all teachers by the law that went into effect in 1907, and at the same time the minimum salary was increased. All young men and women wishing to enter the teaching profession after this date were required to have had an academic training equivalent to a four year high school course and to have had at least twelve weeks of specified professional training before being eligible to write for a certificate. All candidates who met the above requirements and passed an examination in the common school subjects and the theory and art of teaching, which entitled them to a twelve months' certificate, were in class A and received a salary per diem equal to two and one-half cents multiplied by average scholarship, or by general average, in the case of an experi-

enced teacher. All teachers, who in addition to the requirements for class A, had had one year of successful experience, an additional twelve weeks of professional training and held a twenty-four months' certificate were in class B, and received a salary per diem equal to three cents multiplied by their general average. Teachers who were graduates from schools maintaining a professional course for training of teachers, had had three or more years of successful experience and passed an examination which entitled them to a thirty-six months' certificate, were in class C and received as the minimum salary per diem, the amount equal to three and one-half cents multiplied by their general average.

With this brief survey of the requirements that obtained for all schools, a presentation of the facts concerning sex, training, experience, salary, and classification of the teachers in each type of schools is given followed by some inferences that may be made from the same. Table VI shows the number, sex, professional training, experience and salaries of teachers in the rural schools of each township included in this study. For example, in township number one, there were five teachers employed, three of whom were men and two were women; two had had twelve weeks and three had had one year of professional training; one was a beginning teacher, that is, had had no experience; one had had one year; one ten years; one fourteen years; and one fifteen years of experience. Two of the five teachers were in class A with an average daily salary of $2.00; two in class B with an average salary of $2.92; and one in class C with a daily salary of $3.46. Tables VII, VIII, and IX, giving data for consolidated, town and city schools, are to be read in the same way.

At first it was thought advisable to distribute the salaries of all teachers and to determine the central tendency and mean variation of the whole group, but it was found that such a method would result in a tri-modal curve and that the average for each class would give a more reliable basis for comparison. This holds true in corporations where more than the minimum salary is paid, since the basis for the salary schedule is the classification of teachers according to the requirements mentioned above. There is little variation in the amount paid teachers in the same class in any corporation; so that the average salary of the teachers of each class is a fair index of all the teachers of that class. The mean variation is so small for any one corporation that it is almost negligible.

TABLE VI

DISTRIBUTION OF GRADE TEACHERS IN TOWNSHIP DISTRICT SCHOOLS ON BASIS OF SEX, TRAINING, EXPERIENCE, RANK AND SALARY

Number of township	Sex			Training								Experience														
	Men	Women	Total	None	12 weeks	24 weeks	1 year	2 years	3 years	4 years	Graduate work	None	1 year	2 years	3 years	4 years	5 years	6 years	7 years	8 years	9 years	10 years	11 years	12 years	13 years	14 years
1	3	2	5		2		3					1	1									1				1
2	6	12	18	1	9	2	3	2	1			5	5	1				1	2	1		1				
3	3	6	9		3	1	1	3	1			3	1				1	1		1	1					
4	3	14	17	4	3	8	1	1				1		6	1		1		1	2		2		1		
5	3	3	6	1	2	2		1				2				1								1		
6	7	17	24		6	6	3	6	3			6	5	1		1	2	2	2			3				
7	3	5	8		4	2	2					1	1	1		1	1	1	1	1			1			
8	3	8	11	1	7	2	1					4	4													
9	4	2	6		3	2	1					1	1		2	1		1		1		2		1		1
10	7	6	13		4	4	5					2	1	2			2				1					
11	1	6	7		1	2	3	1				2		1	1			1								
12	4	5	9		3	4	1	1				4		1	1		2		1		1					
13	1	7	8	1	4	1	2					1	4	1				1		1						
14	1	3	4	1	2		1						2													
15	1	3	4		1	2	1					1	1		1											
16	3	6	9		6	2		1				6	1		1		1			1					1	1
17	6	3	9		3	2	2		1	1			1	3	1				1		1				1	
18	3	3	6		1	1	1	2	1			1	1	1								1				
19		7	7		1	2	3	1				1	1	3		1										
20	3	3	6			1	2		1	2			1	2	1	1							1			
21	2	5	7		5	1	2					4	1												2	2
22	5	8	13	1	6	4	1	1				6		1	1	1				1	1		1	1		
23	9	12	21	14	3	3			1			2		4	1	3		2	1							
24	3	5	8		3	1	3	1				4	1	1				1							1	
25	1	6	7	1	2	3		1	1			1	2		1	1		1								
26	4	10	14		4	6	3	1	1			4	3	3	1	1	1		1					1		
27	2	9	11		2	4	5					1	4		2				1		1	1				
28	7	9	16	8	5			1	3			2	5	2									1			
29	3	4	7	2	2	2	1					2	2	1	1						1					
30	1	5	6		2	2	1	1				2	1	2		1										

TABLE VI (*Continued*)

Number of township	Experience													Classification and salary					
														Class A		Class B		Class C	
	15 years	16 years	17 years	18 years	19 years	20 years	21 years	22 years	23 years	24 years	25 years	More than 25 years		Number	Average daily salary	Number	Average daily salary	Number	Average daily salary
1	1													2	2.28	2	2.92	1	3.46
2	1					1								10		5		3	
3											1			4		3		2	
4				1			1							5	2.25	6	2.70	4	3.95
5	1											1		2	2.50			4	3.50
6	1							1						14	2.20	5	2.85	5	3.40
7		1			1									3	2.25	4	2.90	1	3.35
8														7		1		3	
9											1			2	2.30			4	3.35
10												1		3	2.25	1	2.90	9	3.40
11														3		3		1	
12														5	2.25	3	2.90	1	3.92
13											1			5	2.30	1	2.82	2	3.40
14											1			2	2.50			2	3.40
15														2	2.35	1	2.75	1	3.25
16														8	2.30	1	2.90		
17			1											4	2.40	2	2.90	3	3.50
18														1	2.30	4	2.78	1	3.40
19			1											4	2.20	2	2.28	1	3.00
20	1													3	2.40	1	3.00	2	3.50
21														4	2.25	3	2.95		
22		1		1					1					8	2.50	3	2.80	2	3.25
23														3	2.30	11	2.85	7	3.50
24														6	2.75	1	3.40	1	3.60
25														2	2.25	4	2.75	1	4.00
26												1		10	2.25	3	3.00	1	3.35
27		2	1	1	1	1								3	2.60	5	3.25	3	3.65
28														9	2.30	2	2.60	5	3.40
29														2	2.50	3	3.10	2	3.50
30														5	2.00	1	2.80		

TABLE VII

Distribution of Grade Teachers in Consolidated Schools on Basis of Sex, Training, Experience, Rank and Salary

Number of township	Sex			Training								Experience													
	Men	Women	Total	None	12 weeks	24 weeks	1 year	2 years	3 years	4 years	Graduate work	None	1 year	2 years	3 years	4 years	5 years	6 years	7 years	8 years	9 years	10 years	11 years	12 years	13 years	14 years
1	2	3	5	2			1			1		1		1						1						1
2		3	3					2	1									1				1				
3	1	5	6		1	1	3					1	2								1	1				1
4	1	4	5			2	1	1						1		1		1		1						
5	2	3	5		1	2	2								1				1		1		1			
6		9	9				4	4	1						3	1	1			1	1					
7		8	8			2	2	2	2				1	2	2	1	2									
8	2	5	7		2	1		1	1	2		1	1		1			1		2				1		
9	1	3	4			3	1								1			1	1			1				
10	2	9	11	1	2	3	2	2	1			1	2	2					1			1		1	1	
11	1	3	4				1	3					1								1				1	
12	1	4	5	2		2				1			1		1									1		
13	1	3	4			1	2	1								1			1		1					1
14		3	3	1				1		1		1														
15		3	3		1			2					1	1	1											
16		4	4		4								1			1										
17	1	3	4		1	1	2					1		2	1											

TABLE VII (*Continued*)

Number of township	Experience												Classification and Salary					
													Class A		Class B		Class C	
	15 years	16 years	17 years	18 years	19 years	20 years	21 years	22 years	23 years	24 years	25 years	More than 25 years	Number	Average daily salary	Number	Average daily salary	Number	Average daily salary
1					1								2	2.30	1	2.90	2	3.50
2	1																5	4.00
3													2	2.20	2	2.65	2	3.50
4	1												2	2.65	2	3.00	1	3.75
5												1	1	2.28	1	2.28	3	3.25
6				2											3	2.60	6	3.40
7													2	2.60	3	3.00	3	3.40
8													2	2.75	2	3.00	3	.385
9															1	3.00	3	3.50
10						1					1		2	2.75	5	3.00	4	3.25
11		1											1	3.00	2	3.00	1	3.75
12	1		1										1	2.50			4	3.55
13															1	3.25	3	3.40
14	1											1	1	2.50			2	3.75
15													1	2.35	2	2.85		
16													1	2.25	3	3.00		
17													1	2.25	2	3.00	1	3.50

TABLE VIII

Distribution of Grade Teachers in Town Schools on Basis of Sex, Training, Experience, Rank and Salary

Number of town	Sex			Training								Experience														
	Men	Women	Total	None	12 weeks	24 weeks	1 year	2 years	3 years	4 years	Graduate work	None	1 year	2 years	3 years	4 years	5 years	6 years	7 years	8 years	9 years	10 years	11 years	12 years	13 years	14 years
1	2	5	7	2	2	2			1			1		1	1			1				1				
2	1	2	3			1	2												1							1
3		5	5			1	2	2								1	1	1	1				1			
4		4	4					3		1			1	1		1					1					
5	1	5	6				1	3	2					2	1								1			
6		3	3				1	1	1										2						1	
7	2	5	7	1			4	2							1	1	1	2		1						
8	2	3	5		2		1	1	1			2		1	1			1								
9	1	5	6				1	1	3	1					2	1			1	1				1		
10		4	4			1	3									1	1									
11	1	5	6		1	2	1		1					1	2			1	1		1					
12		4	4		1	1	1	1								1					1		2			
13	2	3	5		2	2		1									1	1	1					2		
14		5	5	1	2	1			1					1	1	1		1								
15	0	6	6			2	2		2				1	1	1	2					1					
16	1	8	9			3	3	2		1					1		1	3	1	1		1	1			
17	3	3	6				4	1	1			2			1		1	1			1					
18	1	6	7		1	1	5					1	1	1			1				1	1			1	
19	1	5	6	1	1	2	1						1		1	1	1	2								
20	1	7	6				2	3	3			1			1	2		1	2				1			
21		3	3			1	1		1						2			1								
22	2	4	6	1		2	1		1			1	1	1	1	1			1							
23	1	4	5			2	3									1		2				1				
24	2	2	4		1	1	1	1				1	1								1	1				
25							6	4		1				1	2			1		2		1		1		

TABLE VIII (*Continued*)

Number of town	Experience													Classification and Salary					
														Class A		Class B		Class C	
	15 years	16 years	17 years	18 years	19 years	20 years	21 years	22 years	23 years	24 years	25 years	More than 25 years		Number	Average daily salary	Number	Average daily salary	Number	Average daily salary
1						1	1							1		4		2	
2												1				2	3.00	1	3.54
3																4	3.00	1	3.50
4														2	2.50	1	3.00	1	4.00
5	1							1								3	3.00	3	3.90
6																1	2.84	2	3.35
7												1		1	2.75	5	3.00	1	3.50
8														2	2.35			3	3.40
9																4	2.90	2	3.40
10											1	1		2	2.54	2	2.88		
11														1	2.22	4	2.90	1	3.37
12														1	3.00	1	3.00	2	3.60
13																2	3.10	3	3.50
14				1								1		1	2.90	1	2.90	3	3.60
15														1	2.90	4	3.00	1	3.50
16														1	3.50	7	3.50	1	4.00
17														2	2.81	3	3.23	1	3.50
18																			
19																			
20														1	2.75	4	3.00	3	3.50
21																1	2.80	2	3.35
22														2	2.60	3	3.00	1	3.40
23																2	3.00	3	3.40
24														1	2.40	1	2.68	2	3.30
25	1					1								2	3.00	3	3.30	6	3.75

TABLE IX

Distribution of Grade Teachers in City Schools on Basis of Sex, Training, Experience, Rank and Salary

Number of city	Sex			Training								Experience														
	Men	Women	Total	None	12 weeks	24 weeks	1 year	2 years	3 years	4 years	Graduate work	None	1 year	2 years	3 years	4 years	5 years	6 years	7 years	8 years	9 years	10 years	11 years	12 years	13 years	14 years
1	2	16	18			2	12	4					1	1	2	2		2	1	1	2	1		1	1	1
2		10	10			2	3	2	3			1		1	1	2		1		1		1				
3	2	39	41		1	1	5	10	16	8			1		3	2	2	4	4	1	1		5	3		1
4	6	35	41	7	1		7	16	10	1				2	3	6	9	4	3	2		3		1	1	2
5	4	24	28			4	9	5	5	4		1	3	1	1	1				1	1	1	1	1	2	1
6	1	28	29	1	1	3	5	7	6	4		3	3	3	4	5	2			1	1		1			
7	5	32	37	1	4	5	12	8	7				1	5	2	2	5	5	4	2	2		1	3		
8	1	8	9			1	2	2	3	1						1	1	1	2	1		1				
9	4	33	37	5	7	8	5	5	4	1			2	2	2		3									
10	1	21	22	1	1	4	7	5	2	2					1	1	3	2				2		2		
11	1	8	9		2	4	2	1				1	1	1	2	1		1					1			
12	6	36	42	7	5	15	5	7	3			1	1		3	3	3	3				2	1	2	1	2
13	7	63	70		20	7	21	17	5				2	4	5	4	15	8	6	2	3	2	2	1	1	2
14	1	32	33	2		4	14	6	5	2							4	3	2	5	3	1		3	1	
15		15	15		3	4	3	1	2	2		1					2	3	1	1	2	1	1	2	1	
16	2	18	20	4		2	7	2	5						1	1	2	1	1	1	4	1	2	1		1
17	3	19	22	1	2	6	7	3	3					2	2	1	1	2				2	1	1		2
18		11	11				4	2	2	2	1				1		3	1	1		1	2				
19	2	19	21			8	7	2	2	2		1	1	1	2	1	4	3	3	1	1	2	1			
20	1	20	21		1	4	6	8	1	1			1		1	2	2	1	1	2	2	3		1	1	
21	3	16	19		4	3	3	3	6			1			1				2	1	1	4	1	1		1
22	2	16	18	2	1	4	6	2	3				1		1	1	2	1	2	1	1	2	2	2	1	1
23	4	26	30	1	1	1	6	14	6				2	2	2	1	1	2	2	2	1	2	1	0	2	1
24	3	17	20			1	12	5	1	1		1				1	3	2	2	1		4		2		

TABLE IX (*Continued*)

Number of city	Experience													Classification and Salary					
														Class A		Class B		Class C	
	15 years	16 years	17 years	18 years	19 years	20 years	21 years	22 years	23 years	24 years	25 years	More than 25 years		Number	Average daily salary	Number	Average daily salary	Number	Average daily salary
1	1			1	1						1					1	2.90	17	3.45
2	1	1				1										7	2.90	3	3.25
3	2	1			1	1	2			1		2		3	2.83	14	3.05	21	3.80
4	1										1	2				12	2.85	29	3.50
5	1	1	1	1	1	2		1				5				6	2.80	16	3.50
6						2	1	1						6	2.60	10	3.00	13	3.50
7	1	2	1	1										4	2.75	17	3.10	16	3.70
8				1					1					1	3.50	2	3.10	6	3.40
9																			
10	1		1	2	2	3		1						3	2.75	3	3.00	16	3.40
11														2	2.40	4	2.80	3	3.40
12	3	1				2			1	1	2	10		4	2.25	8	2.60	30	3.50
13	2		1		1	2	1		1	1	2	4		13	2.30	32	3.75	19	4.00
14	2	1	2	2	1	1	0	1		1						5	2.80	29	3.75
15		1		1										2	2.50	1	3.00	12	3.50
16		1		1							1	1				1	3.25	19	3.50
17	1	3		2	2									1	2.50	4	2.90	17	3.50
18			1			1								2	2.50	1	2.75	8	3.40
19														1	2.31	8	2.73	13	3.62
20	3					2								1	2.50	4	2.95	16	3.50
21		1				1						3				3	3.00	16	3.50
22			1				1		1					4	2.50	4	2.75	10	3.50
23	4		1	1		1					1	1		4	2.60	6	2.80	20	3.40
24						3					1			1	2.60	5	3.00	14	3.50

Table x gives the distribution of grade teachers according to sex in each of the four types of schools considered. Ward principals are included with the grade teachers in the cities since much of their time is devoted to teaching. The total number of cases in each type is given first, followed by the number of men and women and the per cent of each.

TABLE X

Distribution of Grade Teachers on Basis of Sex

School Corporation	Total	Men	Women	Per cent of Men	Per cent of Women
Township	296	102	194	34.4	65.6
Consolidated	90	15	75	16.6	83.4
Town	130	24	106	18.5	81.5
City	623	61	562	9.48	90.5

It will be observed that feminization is much more pronounced in the city schools in which less than ten per cent of the total grade teaching population are men, as compared with sixteen and six-tenths per cent in the consolidated schools, eighteen and five-tenths per cent in town schools, and thirty-four and four-tenths per cent in the rural schools. Notwithstanding the fact that one-third of the rural teachers are men, fewer men are found in consolidated schools than in the town schools. With consolidation comes the feminization of the teaching population.

Professional Preparation of Teachers

Before summarizing the data on the training of teachers and attempting an analysis of the same, a brief explanation of one or two points is necessary. It might seem that other periods of training than those given in the tables should be included, but when we keep in mind the fact that practically each period given has a legal significance and that all schools of Indiana which train grade teachers are organized on the twelve week term basis, it is readily understood why so few report periods of training longer or shorter than those called for in the table. These few cases are grouped with the teachers with a period of training which most nearly represents the training each has had. For example, if a teacher reported twenty weeks, that teacher was included with the group that has had twenty-four weeks of professional training. It is also necessary to keep in mind the fact that the law requiring teachers to have had a four year high school course or its equivalent before

being eligible to teach, had been in force five years when the data for this investigation were collected, so that all teachers with five or less years of experience were high school graduates before taking the required professional training reported. Teachers with six or more years of experience may or may not have been high school graduates and may or may not have had professional training. An effort was made to collect data relative to academic training of all teachers, but the reports were so incomplete as to render it impossible to secure detailed information that was sufficient in quantity or reliability to justify a distribution, anaylsis, and comparison on this basis. It is obvious that the greater the percentage of teachers with five or less years of experience, the less the percentage without academic and professional training. On the other hand it is probably true that from among the experienced teachers in the rural schools only those who have shown some superior natural ability would be selected for positions in the towns and cities; so that the advantage gained by the rural school on account of the former is more than offset by the latter.

TABLE XI

SUMMARY OF THE DISTRIBUTION OF GRADE TEACHERS ON BASIS OF TRAINING

Corporation	None	12 weeks	24 weeks	One year	Two years	Three years	Four years	Post-graduate	Average Training in weeks
Township	35	99	72	59	27	14	3	..	28.8
Consolidated .	6	12	18	23	19	6	5	..	42.0
Town	6	13	25	47	26	18	4	..	52.0
City	32	54	93	171	137	100	30	2	55.1

TABLE XII

PERCENTILE DISTRIBUTION OF GRADE TEACHERS ON BASIS OF TRAINING

Corporation	None	12 weeks	24 weeks	One year	Two years	Three years	Four years	Post-graduate	Average Training in weeks
Township	11.3	32.0	23.3	19.1	8.7	4.5	.9	..	28.8
Consolidated	6.7	13.5	20.2	25.8	21.3	6.7	5.6	..	42.0
Town	5.0	9.3	17.8	33.5	18.5	12.8	2.8	..	52.0
City	5.2	8.7	15.0	27.7	22.2	16.2	4.8	.03	55.1

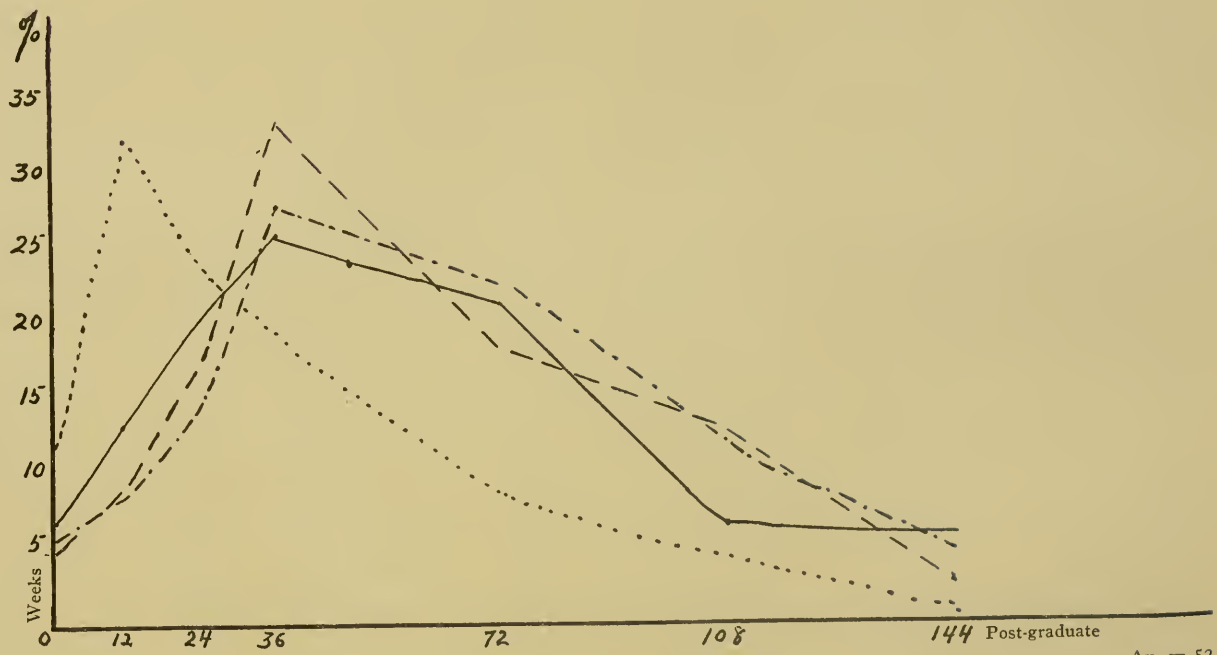


FIGURE 11. Showing distribution of grade teachers in four types of schools on basis of training.

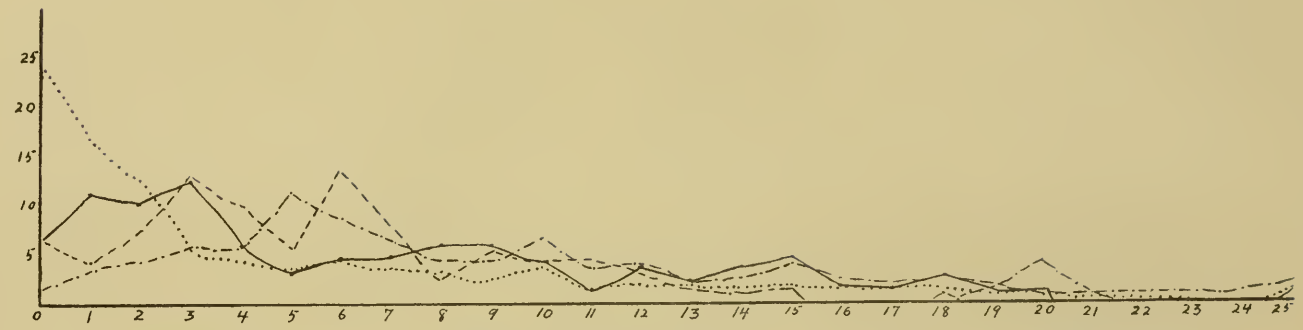
A summary of the training of teachers in the grades of the four types of schools studied is given in Tables XI and XII. The relation of distribution of teachers in one type of schools to the other types is shown graphically in Figure II. From these tables it is seen that there are twice as many teachers in the township district schools who have had no professional training as in any of the other types. That is to say, there are twice as many teachers in the rural schools of Indiana with five or more years of experience that have made no effort to fit themselves for the work they are trying to do as are found in the consolidated, town, or city schools.

The average training of all teachers in the rural schools is twenty-eight and eight-tenths weeks, while the average training of all teachers in the consolidated schools is forty-two weeks; of teachers in town schools, fifty-two weeks, and of teachers in city schools, fifty-five and one-tenth weeks. Teachers in the rural schools have had only sixty-eight and five-tenths per cent the professional training that teachers in the consolidated schools have had, fifty-five and four-tenths per cent the training of the town teachers, and fifty-two and three-tenths per cent the training that the grade teachers in cities have received.

Experience of Teachers

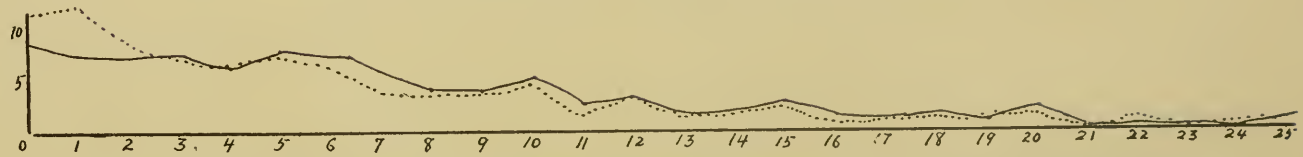
The extent to which the rural schools are made the training schools for teachers in other types is seen by referring to Table XIII. Of the total number of beginning teachers in 1912-1913 in the schools studied, seventy-two per cent were in the rural schools, eleven per cent in the city schools, nine per cent in the town schools, and six per cent in the consolidated schools. By taking into consideration the percentage of beginning teachers in each type, we find that one out of every four teachers in the rural schools has had no experience as compared with one in every fifteen in consolidated and town schools, and one in every fifty in the city schools. When we take into consideration the fact that there were fewer teachers in the township district schools in the year 1912-1913 than the previous year, while there was an increase in the number of teachers in the city schools, the facts indicated above are even more marked.

The median number of years of experience of township district teachers is two and sixty-five hundredths, while the median for teachers in consolidated schools is five and five-tenths, for teachers in town schools it is six and thirteen-hundredths, and for teachers



Township ..... Median = 2.65 years
Consolidated ..... Median = 5.5 years
Town ..... Median = 6.13
City ..... Median = 7.00

FIGURE III. The distribution of grade teachers on basis of experience.



Total ..... Median = 6.6
Coffman ..... Median = 5.2

FIGURE IV. Comparison of distribution of totals of all types with data from Coffman's *Social Composition of Teaching Population.*

in city schools it is seven. Fifty per cent of the teachers in the rural schools have taught one to seven years as compared with the same number in consolidated schools who have taught two and one-half to ten years. Fifty per cent of the town teachers have taught three to nine years, and an equal number in city schools have taught five to twelve years.

The distribution of teachers in the four types of schools on basis of service is shown graphically in Figure III. It will be observed that the curve of distribution of rural teachers is unilateral with the mode at zero. The mode for consolidated school teachers is three years. The curve for town teachers is bi-modal, one mode being at three years and the other at six years. This may be due to a lack of sufficient number of cases, but it will be observed that the mode for city school teachers falls between these two, being at five years, which might be inferred to indicate a point of greatest transition from one type to another.

In order to compare the results of this investigation with other data secured by a different method, the writer took such parts of Dr. Coffman's tabulations (See *The Social Composition of the Teaching Population*) as pertained to Indiana and reduced them to the same basis as the tabulations given in this study. The comparison of the results of Dr. Coffman's investigation and the totals of the four types of schools as derived in this study are shown in Figure IV. The similarity of the two curves is quite marked. The variation for the first two years seems to indicate that Dr. Coffman had a relatively larger number of rural teachers than is included in this investigation. This inference will probably account for the fact that the median experience of all teachers included in this investigation, which is six and six-tenths years, is slightly higher than the median given by Dr. Coffman's data, which is five and two-tenths years.

TABLE XIII

Distribution of Grade Teachers on Basis of Experience

Years	Number of teachers in each type				Per cent of teachers in each type				All types combined		All types by Coffman	
	Township	Consolidated	Town	City	Township	Consolidated	Town	City	Numbers	Per cent	Numbers	Per cent
0	72	6	9	11	24.5	6.8	6.5	1.9	98	8.7	78	11.6
1	40	10	6	20	17.0	11.4	4.3	3.4	86	7.6	83	12.3
2	37	9	11	25	12.6	10.2	7.9	4.2	82	7.3	61	8.9
3	16	11	18	40	5.5	12.5	13.0	6.7	85	7.5	49	7.2
4	13	5	14	38	4.4	5.9	10.0	5.7	70	6.2	46	6.8
5	11	3	8	67	3.7	3.4	5.8	11.3	89	7.9	50	7.4
6	12	4	19	53	4.2	4.5	13.8	8.9	88	7.8	44	6.5
7	11	4	11	40	3.7	4.5	7.9	6.7	66	5.9	25	3.7
8	9	5	5	27	3.1	5.9	3.6	4.5	46	4.1	24	3.5
9	7	5	7	26	2.4	5.9	5.1	4.4	45	4.0	25	3.7
10	11	4	6	37	3.7	4.5	4.3	6.2	58	5.1	30	4.5
11	4	1	6	20	1.4	1.1	4.3	3.4	33	2.9	11	1.6
12	5	3	4	28	1.7	3.4	2.9	4.7	40	3.6	21	3.2
13	5	2	2	12	1.7	2.3	1.4	2.0	21	1.9	9	1.3
14	4	3	1	15	1.4	3.4	.7	2.5	23	2.0	13	1.9
15	5	4	2	23	1.7	4.5	1.4	3.9	34	3.0	15	2.4
16	4	1	0	13	1.4	1.1	0	2.2	18	1.6	6	.9
17	3	1	0	9	1.1	1.1	0	1.5	13	1.2	7	1.0
18	3	2	1	13	1.1	2.3	.7	2.2	19	1.7	8	1.2
19	2	1	0	9	.7	1.1	0	1.5	12	1.1	8	1.2
20	2	1	2	22	.7	1.1	1.4	3.7	27	2.4	11	1.6
21	1	0	1	5	.3	0	.7	.8	7	.5	3	.4
22	1	0	1	4	.3	0	.7	.7	6	.5	9	1.3
23	1	0	0	4	.3	0	0	.7	5	.4	2	.3
24	0	0	0	4	.0	0	0	.7	4	.3	6	.9
25	4	1	1	9	1.4	1.1	.7	1.5	15	1.3	4	.6
26	3	2	4	28	1.1	2.3	2.9	4.7	37	3.3	9	1.3

TABLE XIV

PERCENTILE DISTRIBUTION OF TEACHERS IN GIVEN NUMBER OF YEARS OF EXPERIENCE

Years	Township	Consolidated	Town	City
None	24.5	6.8	6.5	1.9
1 - 5 years	43.2	43.4	41.0	31.3
6 - 10 years	17.1	25.3	33.7	21.9
11 - 15 years	7.9	14.7	10.7	16.5
16 - 20 years	5.0	6.7	2.1	11.1
20 - 25 years	2.3	1.1	2.1	4.4
26 and above ...	1.1	2.3	2.3	4.7

Notwithstanding the fact that the rural schools have a much larger percentage of beginning teachers, it will be observed that the number of teachers with one to five years of experience in the first three types is nearly the same, and that the teachers in the city schools with one to five years of experience is much smaller, but that in the longer periods of service the city has a larger per cent. This would seem to indicate that the migration from the rural schools to consolidated and town schools occurs during the first five years, and from the rural, consolidated and town schools to the city schools after, as well as during this time.

Classification and Salaries of Teachers

TABLE XV

SUMMARY OF CLASSIFICATION AND DISTRIBUTION OF TEACHERS ON BASIS OF SALARIES RECEIVED

Corporation	Total Numbers			Per cents			Salaries		
	A	B	C	A	B	C	A	B	C
Township	141	83	72	47.6	28.0	24.3	$2.36	$2.88	$3.36
Consolidated	19	30	40	21.1	33.3	45.5	2.50	2.91	3.53
Town	21	60	47	16.4	46.8	36.7	2.65	2.94	3.56
City	52	168	373	9.8	31.5	58.7	2.53	3.06	3.58

From the previous table it is to be expected that there would be a much larger per cent of class A teachers in the rural schools than in any other type. The consolidated schools rank second. Notwithstanding the fact that the consolidated schools had about the same per cent of inexperienced teachers as the towns, according to Table xv, the towns have a much smaller per cent of class A teachers which indicates that a smaller per cent of experienced teachers in the consolidated schools have met the scholastic and professional training necessary for promotion to a higher class. On the whole the consolidated schools with forty-five and five-tenths

per cent of class C and thirty-three and three-tenths per cent of class B teachers outrank the town schools with thirty-six and seven-tenths per cent of class C teachers and forty-six and eight-tenths per cent of class B teachers.

The general effect of the legislation concerning the minimum salary and professional training of teachers has been to cause a gradual increase in the salaries of teachers in all types of schools, especially the rural schools. By taking the reports of the state superintendent of public instruction for the years 1904 and 1910 and computing the average salary for all teachers in each type as tabulated in this investigation, we get the following results which verify the above statement:

TABLE XVI

AVERAGE SALARY OF ALL GRADE TEACHERS IN EACH TYPE OF SCHOOLS COMPARED WITH AMOUNTS RECEIVED IN 1904 AND 1910

	Township	Consolidated	Town	City
1904 (report)	$2.36	$...	$2.69	$3.05
1910 (report)	2.62	2.97	3.11	3.14
1912 (this investigation)	2.75	3.10	3.12	3.34

It would seem that teachers in the same class should receive the same salary, regardless of the type of schools in which they teach. The fact that class A teachers in the rural schools receive on an average only two dollars and thirty-six cents per day, while teachers in the same class in the consolidated schools receive two dollars and fifty cents per day and the teachers in the towns and cities even a greater amount, may be due to one of two reasons. It may be due to the fact that the township trustees usually pay only the minimum amount called for by law even to a fraction of a cent, while the officials in the other schools are governed only in a general way by the minimum salary law and may pay even a little more than this amount, or it may be due to the fact that the general average of all teachers in each class in the rural schools is lower than in the other types.

The minimum salary law has affected the distribution of teachers in another way. It is a frequent occurrence for township trustees, on account of a false notion of economy, to refuse to employ any but class A teachers, while officials in other schools, especially of city schools, emphasize the fact that they want only class C teachers.

High School Teachers

The legislation, a summary of which was given above, has to do almost entirely with grade teachers. Beginning high school teachers, however, must have had the professional training equivalent to that required for class A before entering the profession, but neither advancement nor salary is dependent on the classification that obtains for grade teachers, since very few high school teachers receive a smaller salary than is paid elementary teachers in class C.

It is usually assumed that the more poorly prepared and less experienced as well as the most poorly paid teachers are to be found in the more remote and smaller high schools of the state. It will be our endeavor to see to what extent this assumption holds true, by giving as many of the facts that bear on the situation as possible and forming such conclusions as these facts will warrant.

The original data are given in Tables XVII-XIX and should be read in the same manner as the tables for grade teachers. On account of the difficulty in tabulating the data pertaining to salaries of the teachers in each school, the original data are not given in these tables. It would have been more satisfactory if we had had a greater number of cases, but this was impossible in the case of consolidated schools, since practically all that have been established any length of time are included. The results obtained from data for town and city high schools indicate that we have a representative sampling and that a greater number of cases would not change the final results materially.

The summary of the distribution of high school teachers on the basis of training is given in total numbers in Table XX and in per cents in Table XXI. A graphic representation of the same is given in Figure V. The returns were too indefinite to permit a detailed distribution of those who had had post-graduate work. It ranged from six weeks to two years. In computing the average training of the teachers in each type of high schools, it was arbitrarily assumed that one year would be a fair average for all who reported having had post-graduate work. This is probably too large and would favor the city high schools since one out of every four have had some work beyond that required for an A.B. degree, while only one in every fifteen in the town and consolidated high schools report having had any graduate work. The central tendency for teachers in consolidated schools is a little higher than

TABLE XVII

Distribution of High School Teachers in Consolidated Schools on Basis of Sex, Training and Experience

Number o township	Sex			Training								Experience																						
	Men	Women	Total	None	12 weeks	24 weeks	1 year	2 years	3 years	4 years	Graduate work	None	1 year	2 years	3 years	4 years	5 years	6 years	7 years	8 years	9 years	10 years	11 years	12 years	13 years	14 years	15 years	16 years	17 years	18 years	19 years	20 years	21-25years		26-30years
1																																		
2	1		1						1															1										
3	1	2	3						2	1										1		1				1								
4	1		1				1																											
5	1	2	3					1	1	1						1			1		1													
6	3	2	5							4	1	1			1	1		1		1														
7	4	2	6						1	4	1	1		1		1	1	1																
8	2	2	4						1	3		1			1					1					1							1		
9	2		2							2						2												1						
10	3	4	7					3	1	3			3	1	1					2														
11	1	2	3						1	2				1	1										1									
12																																		1
13	2		2							1	1	1														1								
14	1	1	2					1		1						1										1								
15	1	1	2					1		1		1																						1
16	1	1	2							2																								
17	1	1	2							2				1	1																			

TABLE XVIII

DISTRIBUTION OF HIGH SCHOOL TEACHERS IN TOWN SCHOOLS ON BASIS OF SEX, TRAINING AND EXPERIENCE

Number of town	Sex			Training								Experience																						
	Men	Women	Total	None	12 weeks	24 weeks	1 year	2 years	3 years	4 years	Graduate work	None	1 year	2 years	3 years	years	5 years	6 years	7 years	8 years	9 years	10 years	11 years	12 years	13 years	14 years	15 years	16 years	17 years	18 years	19 years	20 years	21-25 years	26-30 years	31 years
1	2	1	3						1	2										1					1		1								
2	1	1	2						1	1			1						1																
3	2	1	3					1		2				1			1			1															
4	2	2	4					1		3			1			1	1		1																
5	3		3						1	2								1		1			1												
6	1		1					1									2																1	
7	2	1	3							3					1																				
8	2		2					1		1									1	1															
9	3	2	5					1	1	2	1				1	1	1							1											
10	1		1						1									1																	
11	1	2	3					1	1	1				1		1			1																
12	2		2					1		1					1							1													
13	2	1	3					1		2		1					1				1														
14	3	1	4					1	2		1					2	1			1															
15	2	2	4							4				1		1				1		1													
16	2	2	4							3	1	1	1			2																			
17	2	1	3					1	2						1	1									1										
18	4	1	5							4	1				1						1	1		1	1										
19	3		3					1	2							1		1	1																
20	3	2	5							4	1	1	1			1		1					1												
21	1	1	2					1	1												1										1			
22	1	2	3						1	1	1				1		1		1																
23	2	2	4					1		3			2	1											1										
24	2		2					1		1								1				1													
25	3	1	4				1		1	2							1	1		1											1				

TABLE XIX

Distribution of High School Teachers in City Schools on Basis of Sex, Training and Experience

Number of city	Sex			Training								Experience																				
	Men	Women	Total	None	12 weeks	24 weeks	1 year	2 years	3 years	4 years	Graduate work	None	1 year	2 years	3 years	4 years	5 years	6 years	7 years	8 years	9 years	10 years	11 years	12 years	13 years	14 years	15 years	16 years	17 years	18 years	19 years	20 years	21-25 years	26-30 years	31 years
1	4	2	6							3	3					2			2				2											
2	2	3	5				1			3	1	1	1		1							1										1		
3	9	8	17							15	2		1		2	4	1		2	2							1	2			1		1	
4	8	7	15										1	4	3	1		1	2			1		1		1								
5	4	6	10						1	2	7					1	2	1	1		2	1							1			1		
6	2	4	6							5	1		1		2		1		1						1						1		
7	9	12	21					1	7	10	3			1	3	3	1	1	1			4	2		1	1						1	2	1
8	2	3	5					2		3			1		1		1									1					1			
9																																		
10	4	3	7							4	3				2			1				1		1		2					1			
11	2	4	6					1	2	3		1		1		2	1							1										
12	4	4	8		1			2	1	3	1		1					1								1	2					1	1	1
13	6	8	14						1	6	5			1		2	4	2	1	1	1							1						
14	7	2	9						1	7	1					1	1		2	1	1	1			1			1						
15	4	3	7						1	6					1		2	1		1	1										1			
16	4	4	8						3	4	1					1	1	1	1	1			1	1			1							1
17	4	4	8						2	5	1		2	1		1									2						1			
18	2	3	5							4	1					1		1				1	1										1	
19	4	3	7							3	4		1		1			1	1	1				1		1								
20	5	3	8				1	2	1	2	3					1			1	1			2	1		1		1						
21	3	6	9					1	2	4	2				1	1	2		2		1		1											
22	3	3	6						1	3	2		1		1		2							1					1					
23	5	4	9						2	5	2			1	1	1						2		1			1						1	1
24	3	3	6				1			3	2	1	1				1		1	1		2												

TABLE XX

SUMMARY OF THE TRAINING OF HIGH SCHOOL TEACHERS

Corporation	None	12 weeks	24 weeks	One year	Two years	Three years	Four years	Post-graduate	Average in years
Consolidated	..	..	..	1	6	8	27	3	3.55
Town	..	..	..	1	14	15	42	6	3.48
City	..	1	..	7	14	28	113	50	3.85

TABLE XXI

PERCENTILE DISTRIBUTION OF HIGH SCHOOL TEACHERS ON BASIS OF TRAINING

Corporation	None	12 weeks	24 weeks	One year	Two years	Three years	Four years	Post-graduate	Average in years
Consolidated	..	..	..	2.2	13.3	17.8	60.0	6.7	3.55
Town	..	..	..	1.2	18.1	19.2	53.8	7.7	3.48
City	..	.5	..	3.3	6.6	13.1	53.1	23.5	3.85

that of the town high schools, but a little lower than the central tendency for city high schools. The curves of distribution are very similar except that the variation for city teachers is greater. On the whole, the training of teachers in the city high schools is very little superior to the training of teachers in the consolidated and town high schools, which would indicate that some other factor than the amount of professional training was the determining factor in the distribution of high school teachers.

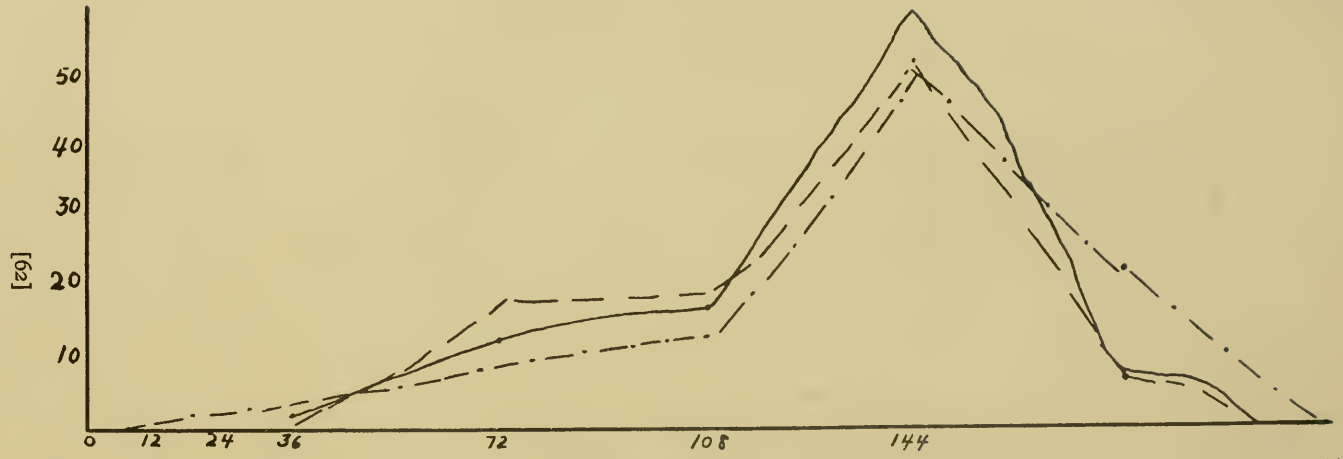


FIGURE v. Distribution of high school teachers on basis of training.

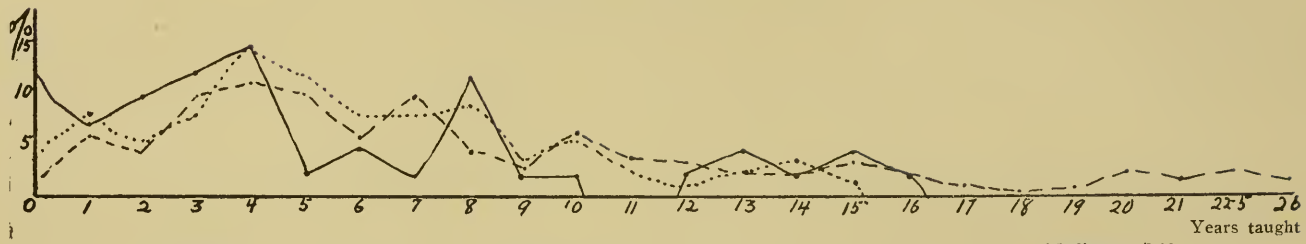
TABLE XXII

DISTRIBUTION OF HIGH SCHOOL TEACHERS ON BASIS OF EXPERIENCE

Years taught	Total Numbers			Per cents		
	Consolidated	Town	City	Consolidated	Town	City
0	5	3	3	11.4	3.8	1.5
1	3	6	11	6.8	7.6	5.4
2	4	4	9	9.1	5.1	4.4
3	5	6	19	11.4	7.6	9.3
4	6	11	22	13.6	13.9	10.7
5	1	9	20	2.3	11.4	9.8
6	2	6	12	4.6	7.6	5.9
7	1	6	16	2.3	7.6	8.8
8	5	7	10	11.4	8.9	4.9
9	1	3	6	2.3	3.8	3.0
10	1	4	14	2.3	5.1	6.9
11	0	2	9		2.6	4.4
12	1	1	7	2.3	1.3	3.5
13	2	2	5	4.6	2.6	2.5
14	1	3	5	2.3	3.8	2.5
15	2	1	7	4.6	1.3	3.5
16	0		5			2.5
17	1		3	2.3		1.5
18			1			.5
19			2			1.0
20		2	5		2.6	2.5
21	1		4	2.3		2.0
22–25		3	5		3.85	2.5
26–	2		4	4.6		2.0

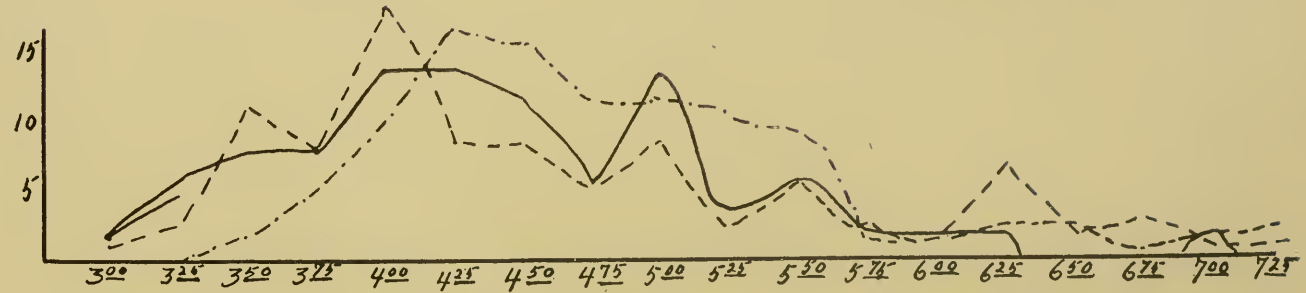
A summary of the distribution of high school teachers on the basis of experience is given in Table XVII. It will be observed that there is a much greater percentage of beginning teachers to be found in the consolidated high schools than in the town and city high schools. This field is so limited, however, that the consolidated schools cannot be said to be the training schools for the other two types as the rural schools are said to be training schools for grade teachers in consolidated, town, and city schools. The limited number of beginning teachers in the high schools may be explained by the fact that most high school teachers have had experience in grade work before entering the high schools. To what extent this holds true, cannot be determined from the data at hand. It can be

EXPERIENCE OF HIGH SCHOOL TEACHERS



Consolidated ..... Median = 4.83 City ..... Median = 7.38
Town ..... Median = 6.08

FIGURE VI. Distribution of high school teachers on basis of experience.



Consolidated ..... Median 4.48 A D = .65 City ..... Median 4.54 A D = .622
Town ..... Median 4.46 A D = .828

FIGURE VII. Distribution of high school teachers on basis of salary (including principals).

said, relatively speaking, that three times as many inexperienced teachers entering the high schools without experience, begin in the township consolidated high schools as begin in the town high schools, and seven times as many as begin in the city high schools. In other words, a college graduate with no experience will find it three times easier to get a position in a consolidated high school than in a town high school, and seven times easier than to enter a city high school, leaving out of consideration for the moment, the difference in the number of schools in each type.

The graph, Figure VI, showing the distribution of teachers as given in Table XVII, shows that we have too limited a number of cases in the consolidated high school to warrant many inferences with reference to experience of teachers. The curves of distribution for towns and cities are quite similar notwithstanding the fact that there are three times as many cases in the latter as in the former. It will be observed that the modes for the three types of schools are the same. The median number of years of experience of teachers in the consolidated schools is four and eight-threehundredths. The median number of years of experience of the teachers in the high schools of the towns is six and eight-hundredths, and that of the teachers in the city high schools is seven and thirty-eight hundredths years. These facts as well as the limited returns as to "length of service in present position" indicate that changes are more frequent in consolidated schools than in either of the other two types. An effort was made to secure data that would permit an analysis of the situation as to length of service in one position, but the returns were inadequate for this purpose. Considering all the facts at hand, it is safe to conclude that experience is a much more vital factor in the distribution of high school teachers than is academic and professional training.

Contrary to common opinion, the facts as revealed in Table XXIII fail to show the great advantage that teachers in the city high schools are thought to enjoy from the standpoint of salaries received, over the teachers in the consolidated and town high schools. The median salary of all teachers, including the principals, in the city high schools is four dollars and fifty-four cents per day with an average deviation of sixty-one cents, while the median salary of teachers in the consolidated high schools is four dollars and forty-eight cents with an average deviation of fifty-five cents, and in the town high schools it is four dollars and forty-six cents

Consolidated ..... Median 4.14 A D = .405 City ..... Median 4.415 A D = .541
Town ..... Median 4.07 A D = .426

FIGURE VIII. Distribution of high school teachers on basis of salary (not including principals).

TABLE XXIII

DISTRIBUTION OF HIGH SCHOOL TEACHERS, INCLUDING THE PRINCIPALS, ON THE BASIS OF DAILY SALARY

Daily Salary	Number of teachers in each type receiving salary given			Per cent of teachers in each type receiving salary given		
	Consolidated	Town	City	Consolidated	Town	City
$3.00	1	1	0	1.95	1.38	0.00
3.25	3	2	2	5.88	2.77	1.25
3.50	4	8	8	7.84	11.11	5.00
3.75	4	6	15	7.84	8.22	9.37
4.00	7	14	27	13.92	18.43	16.87
4.25	7	6	25	13.92	8.22	15.62
4.50	6	6	19	11.76	8.22	11.88
4.75	3	4	19	5.88	5.55	11.87
5.00	7	6	17	13.92	8.22	10.62
5.25	2	2	7	3.92	2.77	4.57
5.50	3	4	3	5.88	5.55	1.88
5.75	1	2	2	1.95	2.77	1.25
6.00	1	1	4	1.95	1.38	2.50
6.25	1	5	4	1.95	6.94	2.50
6.50		1	1		1.38	.63
6.75		1	2		2.77	1.25
7.00	1	1	1	1.95	1.38	.62
7.25		1	3		1.38	1.87
7.50		1	1		1.38	.66
Median	$4.48	$4.46	$4.54			
A D	$0.55	$0.82	$0.61			

with an average deviation of eighty-three cents. There is a greater variability in the salaries of teachers in the town high schools than in either of the other two types. With the thought of determining the cause of this greater deviation, a second table was compiled (see Table XXIV), omitting the high school principals who on account of some administrative work and supervision of the work of the grades receive a higher salary than the regular high school teachers. Naturally the effect will be much more pronounced on the type of high schools employing the fewer number of teachers. The median salary was found to be four dollars and fourteen cents per day with an average deviation of forty-one cents for teachers in the consolidated high schools, not including the principals, four dollars and seven cents with an average deviation of forty-three cents for teachers in the town high schools, and four dollars and forty-two cents with an average deviation of forty-five cents for teachers in the city high schools. While the median salary of the entire teaching population in the three types of schools is practically

the same, the higher salary paid the principals of the consolidated and town high schools as compared with the salary paid regular teachers, causes the salary of the regular teachers in the high schools to be a little lower than that paid the teachers in the city high schools. Generally speaking, the principalship of a smaller high school is more desirable from the standpoint of salary than is a regular teaching position in city high schools.

Figure VII shows the distribution of high school teachers on basis of salary in the three types of schools when the principals were included, while Figure VIII shows the distribution without the principals. The second mode at five dollars for teachers in consolidated schools and at six dollars and twenty-five cents for teachers in the town high schools in Figure VII are not present in Figure VIII, which would indicate that these are the most frequent salaries of the principals in these two types. The greater difference in the median salaries of consolidated and town high school teachers when principals are included, also shows that the principals in the town schools receive a larger salary in relation to the number of teachers

TABLE XXIV

DISTRIBUTION OF HIGH SCHOOL TEACHERS, NOT INCLUDING THE PRINCIPALS, ON BASIS OF SALARY

Number of teachers receiving salary given				Per cent of teachers in each type receiving salary given		
Daily Salary	Consolidated	Town	City	Consolidated	Town	City
$3.00	1	1		3.12	2	
3.25	3	2	2	9.36	4	1.46
3.50	4	8	8	12.48	16	5.84
3.75	4	5	15	12.48	10	10.95
4.00	7	13	27	21.85	26	19.70
4.25	6	5	25	18.73	10	18.10
4.50	3	5	14	9.36	10	10.20
4.75	3	4	19	9.36	8	13.80
5.00	1	6	15	3.12	12	10.90
5.25		1	6		2	4.30
5.50			1			1.46
5.75			1			1.46
6.00			2			2.92
6.25			1			1.46
6.50						
6.75			1			1.46
Median	$4.14	$4.07	$4.42			
A D	.405	.426	.541			

under them than do the principals of consolidated schools. Taking the school as a whole, the consolidated high school teachers are better paid than teachers in the town high schools.

Special Teachers and Supervisors

The nature and extent of the work of special teachers and supervisors is so varied that it is difficult to get any basis for comparison of the work in the different types of schools. In one school a supervisor may do all the teaching in a special subject, such as music, or she may plan the work for the entire system, giving special instruction and supervising the work of the grade teachers, or she may devote the greater part of her time to instruction in the high school and merely plan the work, secure materials and special aids for the regular teachers. Be that as it may, the fact that a school system has a special teacher on its pay-roll who devotes all her time and energy along the line of her specialty would indicate that that system of schools is giving greater consideration to that line of work than a school system that has no such teacher.

The state board of education requires high schools to give work in music and drawing in order to be commissioned or certified, as the case may be. In order to meet this requirement, some school boards secure local talent to give a few hours' instruction in the high school each week. In one case it was reported that the salary per day of a music teacher was five dollars while the monthly pay-roll showed that she received twenty-five dollars per month. In a number of cases the work in music and drawing was taught by teachers of the regular high school subjects, which would mean that no attention was given to these subjects in the grades except as was given by the grade teachers themselves. Cases were found where teachers were employed to give instruction in a special line of work, but were also required to take one or more classes in the regular high school subjects.

The two cases in Table xxv where a special teacher gives instruction in music and drawing in the township district schools, are examples of a recent movement in Indiana to provide instruction for the rural schools in some of the special subjects that is in a way comparable with that given in consolidated, town, and city schools. A few townships or combination of townships employ a special teacher who goes from school to school to give instruction in music and drawing. Recent legislation has provided for an agent or

supervisor for each county who shall devote his whole time to the rural schools. While it is not mandatory, many counties are preparing to take up this work as provided for by law. In some cases the transportation of these special teachers is provided by the township, while in others the teachers have to provide their own conveyances. These teachers give out plans and material and give instruction to the teachers at each regular meeting of the teachers in township institutes; so that the work can be made as effective as in schools located in centers of population.

TABLE XXV

SPECIAL TEACHERS AND SUPERVISORS

Number and per cent of school corporations with	Number				Per cent			
	Rural	Consolidated	Town	City	Rural	Consolidated	Town	City
1 No special teacher or supervisor	29	0	3	8	93.5	17.6	32	00
2 One special teacher or supervisor	2	6	12	4	6.4	35.3	48	16.6
3 Two special teachers or supervisors		7	2	8		41.3	8	33.3
4 Three special teachers or supervisors			2	7			8	28.0
Four special teachers or supervisors				3				12.5
Five special teachers or supervisors				2				8.3
Number of school corporations in which the special subjects are taught by								
Regular teachers			7	3			28	12.5
One special teacher for music		7	1	13		41.2	4	54.2
One special teacher for drawing		6	1	10		35.3	4	41.6
One special teacher for music and drawing	2	6	11	10	6.6	35.3	44	41.6
One special teacher for music, drawing, and domestic art		1	1			5.8	4	
One special teacher for domestic science			5	8			20	33.3
One special teacher for manual training			1	9			4	37.5
One special teacher for agriculture								
One special teacher for penmanship				2				8.3
One special teacher for German in grades				1				4.16
Supervisor of primary work				2				8.3

Table xxv shows that consolidated schools are giving greater consideration to the newer subjects than the town schools. Thirty-two per cent of the latter have no special teacher or supervisor, forty-eight per cent with only one, and eight per cent with two special teachers, as compared with seventeen per cent of the consolidated schools with no special teacher, thirty-five per cent with only one, and forty-one per cent with two special teachers. This same

fact is shown a little farther down in the table where forty-four per cent of the towns have the one special teacher for both music and drawing, while the consolidated schools have a special teacher for the two subjects in only thirty-five per cent of the schools. The consolidated schools far surpass the town schools and compare very favorably with the city schools in the number in which there is a special teacher for each of the two subjects, music and drawing. In all cases in the consolidated schools manual training was taught by some teacher who was selected primarily to teach other subjects. The same was true in the town schools with one exception. While agriculture was given considerable attention by a number of schools,

TABLE XXVI

DISTRIBUTION OF SPECIAL TEACHERS ON BASIS OF SALARY

	Number				Per cent			
	Rural	Consolidated	Town	City	Rural	Consolidated	Town	City
$2.00		1	1	1		5.8	6.2	2
2.50	1	2	1	1	50	11.7	6.2	2
3.00		4	2	2		23.5	12.4	4
3.25	1	4	2	4	50	23.5	12.4	8
3.50		4	2	4		23.5	12.4	8
3.75		2	2	6		11.7	12.4	12
4.00			3	10			18.6	20
4.25			1	9			6.2	18
4.50				8				16
4.75				3				6
5.00			2	1			12.4	2
6.00				1				
Median		$3.34	$3.67	$4.17				

especially the town and consolidated schools, only one teacher was found who was selected primarily for that work, and that was in a town school. While domestic science and domestic art are given as much attention in the consolidated schools as in the town schools, as we shall see a little later, we find that the former have only one school where a special teacher has this work, while special teachers are provided in twenty-four per cent of the town schools, and thirty-three per cent of the city schools. Special teachers of penmanship, German in the grades, and supervisors of primary work were found only in a very small per cent of the cities.

The salaries of special teachers per diem in the consolidated schools are lower than the salaries of special teachers in the towns, which is the reverse of what was found concerning the salaries of regular teachers, both in the grades and high school. The median salary of the special teachers in the consolidated schools is three dollars and thirty-four cents per day as compared with the median salary of three dollars and sitxy-seven cents for the special teachers in the town and the median salary of four dollars and seventeen cents for the special teachers in the city schools.

The salaries of special teachers in all schools are lower than the salaries of the regular high school teachers, but somewhat better than the salaries of the regular grade teachers as will be observed by referring to Table XXVII.

TABLE XXVII

MEDIAN SALARIES OF GRADE, SPECIAL, AND HIGH SCHOOL TEACHERS IN CONSOLIDATED, TOWN, AND CITY SCHOOLS

	Grade Teachers	Special Teachers	High School Teachers
Consolidated	$3.10	$3.34	$4.14
Town	3.12	3.67	4.07
City	3.34	4.17	4.42

CHAPTER IV

Enrichment of Curricula

A good test of the kind of work a school is doing, though somewhat intangible, is to study the nature and extent of the effort of that school to enrich its course of study. Not plans and outlines on paper merely, but enrichment in the sense that an effort is made to bring to the child those things demanded by the life he is living and the problems he will have to meet and in such a manner as to cause an appreciation and response on the part of the child. It may happen that a certain school has introduced manual training with the idea of satisfying the ambitious desires of a city superintendent to keep apace with what some other school or superintendent is doing and there be a decided lack of any understanding of what should be attempted or the values to be realized. On the other hand a superintendent and his teachers may gradually develop a line of work in response to local needs without giving a specific name to it or a definite time and place in the curriculum, but correlate it with some of the traditional subjects. While it may be true that one school does more work in a certain line, nature study, for example, in connection with home geography, than another school which has a definite time and place in its course for this work, it is more than probable, at this stage in the evolution of our schools, that the extent to which the newer subjects are given a definite place in the curricula of the different types of schools may be considered a fair index of the nature and extent of the work that is being done by them along these lines. It is on this assumption that a presentation of the time and place of the newer subjects in the curricula of the different types of schools is given in a more or less detailed manner.

The legislature and the state board of education have had a determining influence on the curricula of schools. The law enacted in 1869, which is still in force, pertaining to what shall be taught in the common schools of the state is as follows:

"The common schools of the state shall be taught in the English language and the trustee shall provide to be taught in them orthography, reading, writing, arithmetic, English grammar, physiology, history of the United States, and good behavior, and such other branches of learning and other languages as the advancement of the pupil may require and the trustees from time to time direct. And whenever parents and guardians of twenty-five or more chil-

dren in attendance at any school of a township, town, or city shall so demand, it shall be the duty of the school trustee or trustees of said township, town, or city to procure an efficient teacher and introduce the German language as a branch of study in such schools; and the tuition in said schools shall be without charge, provided such demand is made before a teacher for said district is employed." To the above list of required subjects was added "Scientific Temperance" in 1895.

The great factor in determining the curricula of the schools of the state has been the initiative and leadership of the state superintendent of public instruction supported by the state board of education. The control the state superintendent has in formulating the course of study for the schools of the state has been gained by the exercise of initiative on the part of certain men who have held this position and by virtue of the power delegated to this office rather than by any direct legislation. Prior to 1894 each county board of education was supposed to adopt a course of study for the schools of the county, but at a meeting of the county superintendents' association of that year a resolution was passed which placed the construction of the course of study in the hands of the state superintendent. The course is adopted and enforced by the county board of education of each county, though modifications and additions may be made by any school corporation if sanctioned by the state department so long as these changes do not interfere with the subjects specified by law. On account of the fact that the rural schools had the greatest need for a definite course of study to guide the work in these schools, it has been planned to fit the conditions and meet the needs of the rural school particularly so that modifications need to be made to fit the course of study to the organization of town and city schools with their longer school year as well as local needs. Naturally, a course of study planned for a six months' rural school would not be suited to a nine or ten months' school year of town and city without some adjustments. The course of study issued by the state superintendent for the year 1913-1914 is a marked improvement over preceding courses. It is organized on the semester basis with a maximum and minimum amount of work specified, the minimum amount to be covered by the rural schools with a shorter school year, and the maximum to be completed by schools which continue in session eight or nine months. It also provides for the correlation of the work in rural schools so as to

make possible a reduction in the number of classes and specifies in more detail the work that should be covered by schools with short school year and what should be added in schools which continue in session a longer period. While the matter of seeing that teachers follow the state course of study in the grades is left, for the most part, to local officials, the state board of education exercises direct supervision of the work of the high schools. A high school is not compelled to use the course of study issued by the state department, but the courses used must be approved in order for this school to retain its commission or certificate as the case may be. The required work in the more recent courses is limited and definite, with extensive electives, so that it is possible for a pupil to select most any kind of a course he may desire. He may take work that will fit him to meet college entrance requirements or he may take more practical work and specialize in science and agriculture.

The state manual or course of study for the grades for the year 1911-1912 gave definite outlines for the work in the required subjects for each year they were to be taught, combining and correlating physiology, hygiene and scientific temperance, and in addition, gave detailed outlines for work in music and agriculture, and general suggestions for work in drawing. This course was adopted by most, if not all, county boards of education and became the official guide for all rural and consolidated schools. All rural schools were found to be using this state manual, but when a more detailed investigation was made, it was found in several cases, and probably is true in many schools, that it was followed in so far as it pertained to the textbook work in the traditional subjects but that little attention was given to elementary language and history work and to the newer subjects of the curriculum such as music, drawing, agriculture, manual training, and domestic science. Exceptions were found where schools were in charge of well-trained, experienced teachers. All consolidated schools use the state course of study in the grades without modification, with one exception, in which case a local course in geography was planned. The situation in the town schools was very similar to that found in the consolidated schools, while the greatest deviations from the state course of study were found in the city schools. The number and per cent of schools using the state manual without and with modification and the number using a course of study planned for the one school, is given in Table XXVIII.

TABLE XXVIII

COURSES OF STUDY USED IN THE FOUR TYPES OF SCHOOLS

	Total number of corporation	Grades						High School					
		Number using			Per cent using			Number using			Per cent using		
		Statecourse of study	Modified	Local	State	Modified	Local	State	Modified	Local	State	Modified	Local
Rural	30	30			100								
Consolidated	17	16	1		94.1	5.6		12	4	1	70.4	23.5	5.9
Town	25	25			100			21	4		84.0	16.0	
City	24	4	10	10	16.6	41.6	41.6	4	10	10	16.6	41.6	41.6

It will be observed from the above table that the state manual is used in practically all schools in the grades except in the cities. While the table shows that eighty-three per cent of the city schools used either a modified form of the state course of study or a course locally planned, an examination of these courses shows that few of them differ greatly from the state manual. The answers to the inquiry, "How different from state course of study?" show that the efforts to adapt the state course of study or to plan a course that would meet the local conditions and needs were confined, for the most part, to a redivision of the work outlined in the state manual and to suggestions for supplementing this work. Some of the answers given to this question by superintendents who were not influenced by the state course of study any more than by courses from other cities were: "Greater correlation of subjects", "Less formal grammar and more constructive language work", "Emphasis on manual training and domestic science", "German in the grades", "Place for physical and social education", and "Use of supplementary readers". The last refers to a series of texts not adopted by the state.

The fact that the state manual is so extensively used as issued and in a modified form in the different schools of the state is due to the nature of the training and experience of the principals or superintendents in the consolidated, town, and quite a number of the city schools. The men are selected with reference to academic training and ability to teach certain high school subjects, since the greater part of their time is devoted to teaching in the high schools, rather than to professional training or ability to plan elementary work. The men coming directly from the colleges or departmental

positions in the high schools are neither familiar with elementary school problems or with the educational literature giving the experience of other schoolmen and specialists in dealing with these problems. As these men advance to the superintendency of schools and other inexperienced men take their places, it is not until they have become superintendents of larger schools that they have become familiar enough with the problems of the grades and have acquired sufficient experience in dealing with them to be competent to plan, unaided, a course of study for the grades.

The state course of study for high schools does not occupy so definite and fixed a position in the schools of the state as does the course of study for the elementary schools. This is true for two reasons. The effort of school officials was first directed toward the elementary schools and secondly, the high schools of the state were in charge of men who were more able to plan their own work. The need of standardization, college entrance requirements and the more recent changes in secondary education led to an increased activity on the part of the state officials. The state course of study being planned for the greater number of high schools would naturally be better fitted for the towns and smaller city high schools than for consolidated and larger city high schools. It was found that only sixteen per cent of the city high schools and seventy per cent of the consolidated high schools used the state course of study without modifications as compared with eighty-four per cent of the town high schools. The changes made by the consolidated schools were usually with the idea of making possible greater specialization in science and agriculture and in the larger city high schools in order to offer a greater number of courses from which the pupil might select. These city high schools usually offer a commercial course, but none offered an industrial course.

A comparative study of the time and place given the newer subjects in the different types of schools will give some idea of the efforts made in each to enrich the course of study. This was done to a certain extent when the subject of special teachers was considered, but to get a definite basis for comparison that is fair to all types, it is necessary to include work done by regular as well as by special teachers. Superintendents and principals were asked if they gave regular and systematic instruction in music, drawing, etc., mentioning all the newer subjects. In all subjects to which an affirmative answer was given further inquiry was made as to the grade in which the work was given, number of lessons per week

TABLE XXIX (a)

NUMBER OF SCHOOLS OFFERING THE NEWER SUBJECTS

	Total number of corporation	Music		Drawing		Nature Study		Agriculture		Manual Training		Domestic Science		Domestic Art		Kindergarten	German in grades
		Grade	High School	Grade	High School	Grade	High School	Grade	High School	Grade	High School	Grade	High School	Grade	High School		
Rural	30	10		5		5		9									
Consolidated	17	17	14	15	14	9	1	9	6	8	8	7	6				
Town	25	21	20	19	5	9	0	3	9	7	5	1	5	3	2	0	0
City	24	24	24	22	21	7	0	0	18	10	7	8	6	7	4	2	1

TABLE XXIX (b)

PER CENT OF SCHOOLS OFFERING THE NEWER SUBJECTS

	Music		Drawing		Nature Study		Agriculture		Manual Training		Domestic Science		Domestic Art		Kindergarten	German
	Grade	High School	Grade	High School	Grade	High School	Grade	High School	Grade	High School	Grade	High School	Grade	High School		
Rural	33.3		16.6		16.6		30.0									
Consolidated	100.0	82	88.2	82	53.0	5.8	52.6	47.0	47.0	47.0	41.2	35.3				
Town	84.0	82	76.0	20	36.0	0	12.0	36.0	26.0	20.0	4.0	20.0	12.0	6	0	0
City	100.0	100	91.6	87	29.1	0	0	75.0	41.6	29.1	33.3	25.0	29.1	16.6	83.0	4.16

and average length of period for each. It was found in most cases, when music was given that it extended through the grades and the high school. The schools were about equally divided, half the number devoting only one period per week to the subject and half the schools giving two periods per week to it in the grades, and one period per week in practically all the high schools. The same could be said of drawing except in the towns, especially in the high schools. Nature study was given in the lower grades, usually the first four, and correlated with the work in home geography. Agriculture, manual training, and domestic science were given in the first year of high school and sometimes extending through the second year. When given in the high school these subjects were also taught in the seventh and eighth grades. These subjects are seldom taught in the grades when not taught in the high school.

So much is being said and written about industrial education, agriculture, manual training, domestic science, and the like, that we are often inclined to believe that these newer subjects have definite places in the curricula of most of our schools. To what extent these subjects are being taught in the different types of schools of Indiana may be seen by referring to Table XXIX. It will be observed that only one-third of the rural schools pretend to do any systematic work in music and only one-sixth do any work in drawing. Some attention is given to nature study and agriculture in about one-third of the schools. All consolidated schools give regular and systematic work in drawing in the high schools, but in only eighty-eight per cent of the grades. Fifty per cent of the consolidated schools offer nature study in the lower grades and agriculture in the upper grammar grades and high school, forty-seven per cent give regular work in manual training and about forty per cent offer courses in domestic science, which is a very creditable showing, as compared with what is done in the town schools in these subjects, where only about thirty-five per cent give any attention to agriculture and twenty per cent give instruction in manual training and domestic science. The city schools rank second to the consolidated schools in all these subjects except agriculture in the high school. The work in agriculture in the city schools is more of a textbook subject and taught with a different purpose than the agriculture that is given in the consolidated schools. While quite a number of the larger cities included in this study are industrial centers, no mention is made of industrial courses except commercial work in the curricula of any of the high schools.

CHAPTER V

Supervision

A comparison of the supervision in the different types of schools must take the form of a survey for the most part and be limited to a comparison of the supervisory forces, nature and extent of the efforts of the supervising officials to give constructive supervision of the regular work of the teachers, provision for professional improvement of teachers in service and special attention given to the physical needs of the children. If a distinction were made between inspection and supervision, a discussion of the latter would be limited to something less than fifty per cent of consolidated and city schools and ten per cent of town schools.

The supervision of instruction of rural schools is under the direction of the county superintendents. The county superintendent also has the same jurisdiction over consolidated schools which are under the immediate supervision of the principal. The principals of town schools supervise the work of the town schools. The supervisory staff of the city schools consists of a superintendent, ward, and high school principals, supervisors of special subjects and frequently departmental supervisors such as a supervisor of primary grades and a supervisor of grammar grades.

Table xxx shows that there is little possibility of real supervision in the rural schools. The average number of teachers under

TABLE XXX

Supervision in the Different Types of Schools

	Rural	Consolidated	Town	City
Average number of teachers under each superintendent	103	6	..	34
Average number of teachers under each principal	..	8	8	6
Average number of teachers for each special teacher or supervisor	..	6.4	10.8	12.2
Average number of visits per year to each room by superintendents	1.8	2.5	..	45
Average number of visits per year to each room by principals	..	5.6	48	..
Average length in minutes of visits by superintendents	85	60	..	24
Average length in minutes of visits by principals	..	12	23	..
Average amount of time in minutes spent by superintendents and principals with each teacher per week	6.4	28	27	29

each county superintendent is one hundred three. The average number of visits made by county superintendents to each teacher in the township district schools was one and eight-tenths and the average length of each visit was eighty-five minutes. When we take into consideration the fact that practically all the schools under the jurisdiction of the county superintendent are one-room schools located about three miles apart, that much of his time is taken up with clerical duties and the grading of manuscripts for the certification of teachers, we can readily understand why little more than a hasty inspection of the schools in the county is possible even where the county superintendent is fitted by training and experience to do effective supervision. Many county superintendents make it a point to inspect the work of beginning teachers more frequently than they do the work of experienced teachers. It sometimes happens that a teacher has difficulty in arranging her work or meeting other problems of the school, in which case the county superintendent will make a number of visits and spend considerable time in getting matters adjusted. Such cases are rare and usually reach a critical stage before the superintendent knows about them and aids the teachers in solving the difficulties. In the report of county superintendents to the state superintendent very few mention anything that would indicate that any systematic effort is made to improve the work of the teachers. Administrative problems, such as sanitary conditions, consolidation of schools, introduction of agriculture were discussed, but no consideration given to internal work of the schools. Further evidence of lack of any constructive supervision on the part of most county superintendents is seen in the answers given when asked to state in order of importance, the purposes in mind in visiting the schools. The three things mentioned most frequently were: a—legal requirement, that is, a-superintendent must visit all teachers once during the year in order to be able to give each teacher a success grade for the year; b—to see that teachers are following the state course of study, another legal requirement; and c—general inspection. One out of every eleven county superintendents gave an answer that would indicate an effort to do constructive work such as improvement of primary methods, reading, use of supplementary books, emphasis on importance of phonics and systematic work in spelling, encouragement of more systematic work in agriculture, and the like. When we consider the number of visits and amount of time spent at each school, we know that such efforts are not far-reaching.

The work of the consolidated schools is much more carefully supervised. These schools, where found, are given considerable attention by friends and foes alike so that the men who are responsible for them put forth a great effort to place the work on as high a plane as possible. The county superintendent visits these schools more frequently than he does the township district schools and the principal is selected with reference to his ability to supervise more than is the principal of a town school. In addition to the inspections made by the county superintendent, the principals of the consolidated schools average fifty-six visits to each teacher during the year, spending on an average twelve minutes in each room. The county superintendent and principal coöperate in their endeavor to make the work of the school equal to that found in any school of the state by perfecting the organization, securing necessary materials and equipment, but not giving a great deal of attention to the improvement of instruction. One is impressed by the fact that too much consideration is given to what is being done in the city schools and not enough to the local situation. The special teachers devote very little time to supervision as they do practically all the work in the different grades in their special subjects. The answers given by county superintendents to the question concerning the purpose of visitations showed that the legal aspect was of secondary importance and that educational problems were appreciated to a certain extent and given consideration.

The work of the town schools is the most poorly supervised of any type considered, except the rural schools. The principals have had little training or experience in supervising grade work and are usually required to devote the larger part of their time to classroom instruction. These schools are frequently handicapped by lack of adequate material and equipment. The stimulus for doing the best work possible, given consolidated schools on account of being a newer movement and thus under more or less critical observation of patrons and schoolmen, is also lacking. These schools are deprived, through practice rather than by legislation, of the stimulus and suggestions of the county superintendent since towns are permitted to withdraw from the jurisdiction of the county superintendent, the same as city schools. Notwithstanding these limitations, the showing made by the principals of town schools who average forty-eight visits of twenty-three minutes each to each teacher compares favorably with the efforts of the superintendents

of city schools and principals of consolidated schools. The answers to the question as to the purpose of visitation indicate that the work of most of the principals is inspectorial rather than supervisory. Sixteen per cent of the principals seemed to be doing what might be called constructive supervision.

The supervisory force and conditions in most of the city schools are such that effective work can be done. The nature and extent of such work depends more on the initiative and progressiveness of the city superintendent than on external factors. While no data are at hand to indicate the extent of the work of the ward principals, it is safe to assume that their work is in a way comparable to what is done by the principals of the town schools. In addition to the work of these principals we find that the city superintendents average forty-five visits of twenty-four minutes each to each teacher. The answers of forty-five per cent of the superintendents to questions concerning the purpose of visitation indicated that they were at work on definite problems which they mentioned without hesitation, while the answers of the remaining fifty-five per cent showed their work to be general inspection.

Professional Improvement of Teachers in Service

One of the essentials in a progressive school system is to provide some means of stimulating the professional spirit among beginning teachers and to keep this spirit alive and encourage experienced teachers to keep in touch with the progress made in the various fields of education, in order that they may not become narrow and their work become mechanical. The regular educational organizations open to all teachers, which are intended to meet these needs, are "The State Teachers' Association" held during the Christmas vacation, the two sectional associations held during the spring vacation, county institutes held at the county seats during August and the first week of September and a "County Teachers' Association" usually held during the Thanksgiving vacation. There is also a "State Superintendents' and Principals' Association" that holds annual meetings during the month of March. The state and sectional associations are conducted on the plan of all larger organizations of teachers. There are general meetings attended by all, followed by sectional meetings at which problems pertaining to the work of the teachers of that particular group are discussed. While any teacher in the state is eligible to membership, the superinten-

dents and principals of the various schools and teachers of the city schools attend in greater number than do the teachers in town and rural schools.

The county institute conducted by the county superintendent continues in session five days with morning and afternoon sessions. Attendance on the part of teachers under the jurisdiction of the township trustees and county superintendent is in a way compulsory. Regular attendance means an addition of two per cent to general average which in turn means an increase in daily salary for the following year, provided the teacher is paid the minimum amount called for by her certificate as provided by law. This increase in salary amounts to about what the teacher would receive for one week of regular school work. Failure to attend not only means the forfeiture of this additional salary but also a lowering of success grade which in turn means a decrease in salary for the succeeding year. The additional two per cent is granted to town and city teachers but as many of them receive little more than the minimum salary or are teaching on a normal school diploma or exemption license, attendance does not mean any increase in salary for them the following school year. Failure to attend, on the other hand, does not mean lowering of success grade and reduction of salary as the city superintendents who make out the success grades of city teachers do not, as a rule, give as much importance to the county institute as do the county superintendents. While there is this lack of compulsion on the part of city teachers, they do attend quite regularly. The work is usually given by two or three special instructors, one devoting his time to psychology and methods, one to a discussion of importance, purpose, and methods of teaching some subject, such as history, and the third giving work along some special line such as music or agriculture. The work of the whole institute is planned for the most part with reference to the needs of rural teachers, since the attendance is made up more largely of teachers from district schools and the county superintendent has greater interest in them. In some counties the afternoon program consists of sectional programs which make it possible to arrange the work to meet the interests and needs of the different groups of teachers.

The County Teachers' Association is a voluntary organization of the teachers of the county and is controlled and managed by the teachers themselves. The school officials in many counties have

encouraged this organization by permitting teachers to draw regular salary for Thanksgiving Day and the Friday following, provided they attend the two-day sessions of the association regularly, that is held on Friday and Saturday following Thanksgiving Day.

Thus far we have been speaking of organized activities in which teachers of all types of school join on a common basis. When we come to consider the professional work of teachers in service in the different types, considerable variation is found. The teachers in township district and consolidated schools must meet in institute one Saturday each month for which they receive the same salary as for one day of teaching. Failure to attend without a good excuse causes the teacher to forfeit not only the salary for the day, but also an additional day's salary or an additional day of regular teaching may be substituted. This provision is not always vigorously enforced. The work of the township institute is planned by the state department and is based for the most part on the State Teachers' Reading Circle books, adopted by the state board of education, with an additional line of study more or less closely related to the work of the elementary schools and is under the direction of the county superintendent or someone appointed by him. Each teacher, in addition to preparing all the work for the day has some definite work to do. The reports given by the teachers and the discussions that follow are of great value in getting teachers to think about the problems and movements in their profession. While no definite provision is made for the discussion of the problems of the individual teacher that arise in the schoolroom, they are often presented and discussed so that the teacher concerned has the benefit of the experience of other teachers in solving her difficulties. The interest and value of the work of the institute depend to a great extent on the initiative and leadership of the one in charge.

The town and city school teachers have no all-day meetings for professional study comparable to the township institute for rural and consolidated school teachers. The teachers of a few of the towns attend and take part in the institutes when held in their own town, but the lack of pay for attendance as well as penalty for non-attendance causes them to be irregular and to feel less responsibility for the work. The town schools, however, have their own teachers' meetings varying in number from three during the year to one each week, and in length from twenty minutes to two and

one-half hours. The average number of meetings of the teachers of the towns was sixteen or about one in every two weeks. The average length of these meetings was one hour and five minutes. It was found that the whole time of these meetings in twenty per cent of the towns was devoted to discussion of the routine work of the school, forty-four per cent divided the time, devoting about one-third of the time to consideration of local affairs and two-thirds to study and discussion of professional work, and twenty-eight per cent gave entire time to professional study. When this showing is compared with what the township district and consolidated school teachers are doing, we see that one-fourth of the town teachers spend only as much as one-third the time in meetings for professional improvement as the former, forty-four per cent spend about one-fourth the time while twenty-seven per cent spend no time at all in work that would stimulate interest and develop a professional attitude.

Cities vary greatly and to a certain extent according to size, in provisions made for professional advancement of teachers in service. A few cities in which only short monthly business meetings were held offer no better advantages than did the poorest group of town schools. Other cities were found in which regular bi-weekly meetings were held. Alternate meetings were addressed by specialists in the various fields of education and the programs of the other meetings consisted of talks by the superintendents and papers read by teachers, followed by general discussions. In addition to these meetings regular grade meetings were held at which the problems and plan of work for the particular grade were presented and discussed and the supervisors of the special lines of work gave plans and instructions for carrying on the work in their particular subjects. The average number of general meetings for the teachers in city schools for the year was twenty-one with an average length of session of one hour and five minutes each. Twelve per cent of the schools devoted the entire time to announcements and routine work of the school, twenty-one per cent divided the time, giving a short period for routine work followed by longer period given to a consideration of the larger problems of education and sixty-six per cent spent the entire time in professional work of some sort. The superintendents of schools in which no time of the general meetings was given to routine work of the school, attend to such matters themselves by keeping in touch with the teachers by

means of mimeographed announcements and instructions, reports received from teachers from time to time and conferences with the teachers most vitally concerned in any particular problem of the school. The professional study of the city teachers is neither so systematic nor does it require so much study on their part as that done by the rural and consolidated school teachers, but on account of community of interests and initiative and ability of those in charge, the results are more satisfactory and far-reaching.

Medical Inspection

The introduction of medical inspection into the schools of Indiana followed the same course that many of the progressive movements in education have taken. Some steps were taken in this work at first by a few of the more progressive schools of the state, enlarging the functions of the local board of health and utilizing the proffered services of some of the local professional men, followed by mandatory legislation for the larger cities and permissive legislation for other school corporations. At the present time permissive legislation only, obtains for all school corporations except Indianapolis, the one city of the state with a population of more than one hundred thousand. In 1909 a law was enacted requiring the board of health and charities of cities having a population of more than one hundred thousand to make medical inspection from time to time of all persons attending, or employed in or about, all public, private or parochial schools in such city. The law authorized the board to prescribe rules and regulations concerning the number and character of inspections, prohibit the presence of anyone whose health is such that his presence will be injurious to himself or others and appoint competent physicians and district nurses with visitorial power. The law further provides that the city council shall levy a tax of one-half cent on each one hundred dollars to carry on this work.

The permissive legislation enacted in 1911 provides "That school trustees and township trustees are permitted and recommended to institute medical inspection of school children at any time, the said trustees may require teachers to annually test the sight and hearing of all school children under their charge, the said tests and uses thereof to be made according to rules hereafter authorized." Medical inspection is defined as including the testing of sight and hearing of school children and the "inspection of said children by school

physicians for diseases, disabilities, decayed teeth and other defects which may reduce efficiency or tend to prevent their receiving the full benefits of school work." The law provides for the appointment of one school physician for each school corporation; or two or more corporations may unite and employ one physician, but he must not have more than two thousand children under his charge. The man appointed must be a licensed physician, be informed and skilled in medical inspection of children, informed in the health laws and health rules of the state board of health, shall be temperate, able-bodied, cleanly in person, not addicted to drugs and be of good moral character. The compensation of the school physician is determined by the appointing trustee or trustees. The duties of a school physician, when appointed, are set forth in detail and are mandatory so that no one is exempt from the examination by him except on a certified statement of a reputable physician that he has made a thorough examination of the child and notified the parents of the results of such examination. The state board of health and state board of education are authorized to jointly formulate rules and regulations for the detailed enforcement of the provisions of this law.

The medical authorities who exercised control over the school before the enactment of the law for medical inspection and at the present time in school corporations where no school physician has been appointed, is the board of health. This board exercises jurisdiction over schools only when such action is necessary to prevent the spread of disease and to see that school buildings have been properly fumigated after having been occupied by children with contagious diseases. The law providing for the appointment of school physicians had been on the statutes only a short time when the data for this investigation were collected, though a number of schools had some form of medical inspection prior to its enactment. No evidence was found indicating that the schools of rural districts and towns intended to introduce medical inspection. Eleven per cent of the consolidated schools and twenty-one per cent of the city schools have some form of medical inspection, which may be classified into three almost equal groups. The first being composed of the schools in which the tests are made by the teachers, the second is made up of schools in which the teachers make certain tests of all the children and a physician examines cases referred to him by teachers or, as sometimes happens, physicians volunteer their

services and examine all children of the school. The third group is composed of the schools in which there is a regularly appointed school physician who performs the duties prescribed for him by law. In the schools composing this group, the school physician examined all children at the beginning of the school year and reported to parents any defects discovered. He made further examinations of all children sent to him by the teachers and principals from time to time and kept a record of all examinations made and reports sent to parents. A few schools reported dental inspection apart from the regular medical inspection but such cases were where dentists volunteered their services and the work was not followed up or sufficiently systematic to be very effective.

While this movement for the preservation of the health of children is just beginning there is not sufficient data available for reliable inferences, yet there is enough to indicate that the consolidated and city schools are more responsive to the movement for genuine medical inspection.

School and Community Activities

Since the question of making a wider use of the school plant and extending the socializing influence of the school is receiving so much attention in educational discussions, an effort was made to learn of all the work of the schools included in this study along these lines. The results obtained were rather meagre and justify only one conclusion, namely, the school organized as a social center is exceptional and is characteritsic of no particular type of schools.

The results obtained are given in Table XXXI which, taking the city schools as an example, are to be read as follows: Out of the

TABLE XXXI

SCHOOL AND COMMUNITY ACTIVITIES

	Number of organization					Number of meetings per month			Per cent of pupils taking part					Patrons' meetings per year						
	Total	None	One	Two	Three or more	One	Two	Four	15 per cent or less	16-25 per cent	25-50 per cent	50-75 per cent	75 per cent or more	None	One	Two	Three	Four	Five	Six or more
Township	30	30												27	2	1				
Consolidated	17	13	3	1		4	1		2	1	1			11	2	2	1	1		
Town	25	12	10	2		6	4	1	3	2	2	2	1	21	2				1	1
City	24	10	4	6	4	13	10	2	8	3	1	2		14	3	3		1		3

twenty-four cities investigated, ten had no student activities at all in the high school; four had one student organization each; six had two; four had three or more such organizations. Of the total number of organizations found, thirteen held one meeting each; ten held two meetings; and two, four meetings per month. Eight of the high schools having such student activities enrolled fifteen per cent or less of the students in attendance; three enrolled sixteen to twenty-five per cent; one, twenty-five to fifty per cent; and two, fifty to seventy-five per cent of the student body. Fourteen of the twenty-four cities held no patron meetings; three held one; three held two; one held four; and three held six during the year.

A percentile table is unnecessary to show that there is little constructive work along these lines to be found anywhere. While the township district schools report no student organizations as such, we know that quite a number give special programs and the like on Friday afternoons, which, in a way, is comparable to the more definitely organized activities in the high schools of the other types of schools studied. Neither do we find any definite effort, with three exceptions, to arouse greater interest in the schools among the patrons. It is quite a general practice, however, for each school to give some entertainment or hold some kind of a social to which the young people of the community and the patrons are invited. The purpose of this is usually to raise money for the school library. In one case a teacher made an exhibit of the work of the pupils and invited the patrons to spend an afternoon in observing the work of the school. This work is in a way comparable to what is found in more definitely organized form in consolidated schools. The predominating type of organizations among consolidated schools is the debating society and agricultural club. The meetings to which the patrons are invited also take the form of exhibition of the work in manual training and in agriculture, such as a corn show or stock judging contest, and the like.

Among the town and city schools the predominating type of student activities outside of some form of athletic organization which is more or less common, is the debating society, which is greatly stimulated by the triangular debates held among schools of each vicinity. This form of organization, however, is not found in more than fifty per cent of the schools. The majority of the patrons' meetings, which are by no means common among the schools, take

the form of an exhibit at which is displayed the work of the various departments. It is no unusual occurrence for the superintendent or principal and teachers to invite visiting patrons to contribute to the school library, either by donating books or money which may be used for the purchase of books or to aid the school in some other kind of movement which the school has under consideration. It is needless to add that this does not encourage attendance.

One town school and one city school were found that were exceptional in both student and community activities. Each had work that was definitely planned and carried out. The student activities were so organized as to include the majority of all the high school pupils, were under the control of the students themselves and provided for the social as well as intellectual needs of the pupils taking part. The superintendents of these two schools had been able to arouse the interest of the patrons in the work of the school and to extend its influence in the various social functions of the community. There were special clubs for both men and women, social activities for the young people of the community, and a committee of business men to coöperate with the principal and superintendent in giving some vocational guidance to the boy of the community. The local lecture course was organized and maintained by the school. The result of all this work was that these schools were looked to for leadership and promulgation of all community activities.

CHAPTER VI

School Statistics

One of the biggest problems the boards of education in the larger centers of population frequently have to face is to provide school facilities for an increasing and oftentimes, a shifting population within their jurisdiction. The opposite situation often confronts officials of rural schools where, in all older communities, there is a migration from the country to towns and cities. With the former it is a problem of providing additional and oftentimes temporary school buildings, equipment, etc., while with the latter it is a problem of closing some schools that at one time were well attended, consolidating adjoining districts, providing for transportation of pupils in opposition to community pride and local prejudices.

The change in population in the different corporations during the past ten years will reveal the nature and significance of this problem in the different types of schools. The statistics with reference to this point are given in the tables which follow. These tables also give data for determining the ratio of school census to total population, the efficiency of the different types of schools in retaining the pupils enrolled, the average number in daily attendance, the number completing the grades and the high school and the length of school year in days.

In order to determine the number of children of legal school age in any school corporation enrolled in school, it was necessary to make corrections for the transfers from one school corporation to another. These corrections were made by determining the difference between the amount of money paid out by each corporation for transfers and the amount received for the same purpose and dividing the difference in the case of township district schools, by two multiplied by the number of months the schools were in session and adding this quotient to or subtracting from the number of pupils enrolled in the schools of that corporation. If a greater amount was paid out than received for transfers, the number was added to the enrollment of the schools of that corporation, if the reverse, the number was subtracted. Two is taken as the divisor because two dollars per month is the maximum amount allowed by law for tuition of grade pupils of one corporation enrolled in the

TABLE XXXII

POPULATION AND SCHOOL STATISTICS OF TOWNSHIPS WITH DISTRICT SCHOOLS

Number of township	Total population of township 1910	Total population of township 1900	Pupils in parochial schools	School census	Number of children of corporation enrolled in school	Children enrolled in schools of corporation	Average daily attendance	Eighth grade graduates	High school graduates	Length of school year in days
1	790	850		210	180	158	126	11		140
2	2410	2657		834	519	519	488	32		135
3	873	1049		301	200	197	166			120
4	1687	1895		475	399	297	207	17		115
5	775	728		276	173	148	124	14		112
6	3335	3686		901	684	678	475	25		120
7	889	875		228	198	185	126	4		140
8	1670	1794		453	223	222	177	5		140
9	824	812		255	179	164	129	7		140
10	1782	2106		558	490	430	341	20		140
11	1137	1197		406	312	159	126	1		120
12	1185	1165		374	277	195	164	12		120
13	1165	1286		322	261	239	184	19		150
14	522	541		155	130	112	73	4		140
15	536	531		147	102	96	76	4		140
16	1505	1541		397	259	239	191	21		130
17	959	1052		274	214	244	207	12		160
18	1000	827		274	220	212	150			120
19	717	579		255	136	145	99	13		180
20	1483	1708		409	154	154	110	15		140
21	1053	1265		302	263	251	210	18		130
22	1897	1842		608	377	346	255	12		140
23	2671	2859		759	683	543	413	21		160
24	1114	1116		305	218	210	151			
25	659	706		182	151	138	117	4		140
26	2413	2643		723	625	450	372	17		140
27	1519	1900		426	380	305	209	15		160
28	2727	2991		789	605	435	342	23		140
29	1222	1479		354	287	279	198	3		140
30	774	811		192	172	158	108	10		160

schools of another. In case of consolidated, town, and city school corporations, three multiplied by the number of months the schools were in session was taken as the divisor, as it is the average of the maximum amount allowed by law for grade and high school pupils. This somewhat arbitrary method of correction was necessary, since there was no means of determining what per cent of transfers were grade pupils and what per cent were high school pupils, neither were

TABLE XXXIII

POPULATION AND SCHOOL STATISTICS OF TOWNSHIPS WITH CONSOLIDATED SCHOOLS

Number of township	Total population of township 1910	Total population of township 1900	Pupils in parochial schools	School census	Number of children of corporation enrolled in school	Children enrolled in schools of corporation	Average daily attendance	Eighth grade graduates	High school graduates	Length of school year in days
1	1146	1160		298	268	213	180	15		140
2	641	641		169	129	124	102	5		160
3	1738	1643		436		452	300	27	8	160
4	1070	1119		285	251	239	202	18		120
5	1131	1173		298	196	243	183	16	8	160
6	1904	1869		450	387	388	329	24	11	160
7	1594	1550		409		417	292	22	13	155
8	1428	1591		392	317	347	321	23	15	160
9	888	1031		217	182	174	153	6	5	140
10	2234	2564		536	467	469	412	23	12	160
11	776	842		179	152	166	162	5	5	170
12	652	657		171	142	154	118	6		160
13	873	973		213	186	190	145	10	5	160
14	691	684		160	145	157	134	9		140
15	525	561		129	82	87	74	10	4	140
16	613	736		178	137	137	118	6		170
17	985	1095		262	187	189	154			

there any data as to the exact amount of tuition charged per pupil by each school corporation. The results of this method of correction are found in the columns with the headings, "Number of children of corporation enrolled in school". To illustrate the above method let us take number one of the township district school. The number of children enrolled in the schools of the corporation is 158. The amount of money paid out by this township for transfers was $320 and the amount received was $14 or a difference of $306. The schools of this corporation were in session seven months, hence the divisor was 2×7 or 14. 306 divided by 14 equals 21.8. Since more money was paid out than received it means that there were twenty-two more children transferred from than to the schools of that corporation and hence this number must be added to the number enrolled in the school of that corporation, which gives 180.

While an effort was made to secure reports of the number of children enrolled in parochial schools, no reliable data were available since these schools are not under state supervision and few

TABLE XXXIV

POPULATION AND SCHOOL STATISTICS OF TOWNS

Number of town	Total population of town 1910	Total population of town 1900	Pupils in parochial schools	School census	Number of children of corporation enrolled in school	Children enrolled in schools of corporation	Average daily attendance	Eighth grade graduates	High school graduates	Length of school year in days
1	1289	2116		397	279	329	271	19	93	160
2	439	476		135	113	126	84	2		136
3	911	832		191	150	211	164	7	7	180
4	864	915		192	137	214	170	11	10	160
5	1215	1503		327	259	385	319	18		140
6	425	465		87	78	108	92	7		140
7	1428	1567		367	313	346	288	19	17	165
8	961	908		275	208	259	202	13	7	160
9	1115	625		349	260	419	356		2	160
10	827			281	185	189	142	1		140
11	1166	1287		314	214	334	301	12	19	160
12	936	832		178	(209)	226	192	14	4	160
13	1233	1088		280	208	264	221	17		160
14	1148	1176		260	220	256	193	15	4	180
15	1235	1275		312	260	343	308	5	16	180
16	1608	974		422	(534)	574	482	29	18	160
17	1064	923		347	299	385	337	20	14	160
18	1293	1512		297	(418)	437	385	37	18	170
19	880	773		472	281	288	237	37	7	160
20	1757	1638		451	361	438	367	21	14	170
21	454	557		108	92	131	109		4	155
22	859	917		253	231	281	248	15	12	160
23	1167	1244		266	237	289	276	17	9	180
24	675	614		179	156	214	187	11	19	160
25	899	975		221	179	279	237	14	8	160

submitted any information. It is definitely known that a number of children of a greater number of corporations attended parochial schools than is indicated in these tables. The data for the length of school year are included in these tables for lack of better place for the same.

Tables XXXVI, XXXVII, XXXVIII, and XXXIX are derived from the preceding tables and show the nature and extent of change in population in each school corporation in each type considered, the ratio of enrollment to school census, ratio of daily attendance to enrollment, and the per cent of average daily attendance completing the grades and high school.

TABLE XXXV

POPULATION AND SCHOOL STATISTICS OF CITIES

Number of city	Total population of city 1910	Total population of city 1900	Pupils in parochial schools	School census	Number of childreu of corporation enrolled in school	Number of children enrolled in schools of corporation	Average daily attendance	Eighth grade graduates	High school graduates	Length of school year in days
1	3919	3396	642	886	642	849	703	58	20	180
2	3335	3005	510	799	510	616	498	32	33	180
3	8838	6460		2975		1980	1530			180
4	9340	7786	1934	2902	1934	2139	1743		52	180
5	7738	6836		1894	1245	1314	1037	34	31	180
6	6229	2918		1710	1165	1204	928	28	25	180
7	8813	8130	270	2142	1572	1731	1348	80	69	180
8	2526	2336		640	362	430	342	20	13	180
9	8514	7810		2040	1518	1580	1300	68	61	180
10	5420	5034		1542	924	1089	880	52	48	180
11	2464	2527		744	406	462	369	25	13	177
12	10412	10774	107	4451	1802	1850	1408	69	31	180
13	17010	10609		4337	2997	3419	2191	64	69	178
14	10525	7113		3559	1531	1603	1179	31	34	190
15	3930	4326	118	1063	591	656	568	24	31	180
16	4529	4038		1375	651	1085	893	51	32	180
17	5073	4792		1278	901	1053	878	47	29	180
18	2915	2823		760	419	644	496		21	180
19	5130	4798		1349	1065	1165	998	45	23	180
20	4925	4541		1197	804	969	780	48	40	170
21	4115	3118		1103	950	1106	914		42	180
22	4075	3764		1227	921	1006	897	33	29	180
23	7854	8551		2482	1323	1483	1341	47	42	180
24	4266	3705		1159		753	5901			180
25	20081	18116		5678	3016	3075	2470	140	45	185

In fairly stable communities the number of graduates from the grades and high school may be taken as a fair index of the power of the schools of any corporation to retain the pupils enrolled. While we have sufficient data with reference to number of graduates, we were unable to determine the ratio of the number of graduates to the average daily attendance in the grades and high school separately, since the reports gave the average daily attendance of grades and high school together. The ratios of the graduates in both grades and high school to the total average daily attendance in each school corporation necessarily favor school corporations with large high school attendance and comparatively

TABLE XXXVI

CHANGES IN POPULATION AND STATISTICS OF TOWNSHIP DISTRICT SCHOOLS GIVEN IN PER CENT

Number of township	Change in population in ten years		Per cent of total population of legal school age	Per cent of school census enrolled	Per cent of pupils enrolled in daily attendance	Per cent of average daily attendance completing grades or high school
	Number	Per cent				
1	−60	−7.0	26.6	79.6	79.6	8.7
2	−247	−9.6	34.5	62.0	94.0	6.7
3	−176	−16.3	34.5	64.7	84.2	
4	−208	−11.1	28.2	84.0	69.8	8.1
5	47	6.0	35.6	62.7	83.8	11.1
6	−351	−9.6	27.2	76.0	70.0	5.3
7	14	1.6	25.7	75.0	68.1	3.2
8	−124	−6.9	27.1	76.1	79.8	2.8
9	12	1.5	28.5	88.0	78.6	5.4
10	−324	−15.4	31.3	76.6	79.2	5.9
11	−60	−5.0	35.8	78.0	52.1	.8
12	20	1.7	31.5	78.0	84.0	7.3
13	−121	−9.4	27.6	84.0	77.1	10.3
14	−19	−3.5	29.6	68.3	65.2	5.5
15	5	.9	27.5	65.1	79.1	5.3
16	−36	−2.3	26.4	78.0	79.9	11.0
17	−93	−8.8	28.6	78.5	85.0	5.8
18	173	17.3	27.4	80.2	70.8	
19	138	19.3	35.5	53.2	68.3	13.1
20	−225	−13.2	27.5	37.8	7.14	13.6
21	−212	−16.8	28.2	87.0	83.6	8.6
22	55	2.9	32.1	62.2	73.7	5.3
23	−188	−6.6	27.3	90.6	76.0	5.1
24	−2	−.2	27.4	72.0	71.8	
25	−47	−6.6	26.7	82.9	84.8	3.4
26	−230	−8.7	30.0	86.2	82.7	4.6
27	−381	−20.1	28.1	89.0	68.3	7.4
28	−264	−8.8	28.9	76.7	78.6	6.7
29	−257	−17.6	28.4	81.2	71.1	1.5
30	−37	−4.5	25.8	89.7	64.1	9.3

TABLE XXXVII

CHANGES IN POPULATION AND STATISTICS OF TOWNSHIP CONSOLIDATED SCHOOLS GIVEN IN PER CENT

Number of township	Change in population in ten years		Per cent of total population of legal school age	Per cent of school census enrolled	Per cent of pupils enrolled in daily attendance	Per cent of average daily attendance completing grades or high school
	Number	Per cent				
1	−14	−1.2	26.1	89.7	84.5	8.3
2	0	0	26.4	76.8	82.0	4.9
3	95	5.5	25.1		66.3	11.7
4	−49	−4.6	26.6	88.0	84.8	8.9
5	−40	−3.5	26.4	65.6	75.1	13.1
6	35	1.8	24.6	86.2	84.6	10.6
7	44	2.8	25.7		70.1	11.9
8	−63	−4.4	27.5	81.0	92.8	11.8
9	−143	−16.1	24.5	83.8	88.1	7.2
10	−330	−14.9	24.0	87.5	87.8	8.0
11	−66	−8.5	23.1	85.0	97.8	6.6
12	−5	−.8	26.1	83.1	77.8	5.1
13	−100	−11.5	24.4	87.1	75.1	10.2
14	7	1.1	23.2	90.6	85.2	6.7
15	−36	−6.8	24.6	63.8	85.0	18.9
16	−123	−20.1	29.0	77.1	86.3	5.1
17	−110	−11.2	26.6	71.3	81.3	

small grade attendance. Since, however, the town and consolidated schools are very similar in this respect, it is doubtful if the relative standing of the two in the above table would be changed if we had exact data concerning this point.

Table XL shows the central tendencies and deviations in data given in the preceding tables and provides a basis for comparison of the standing of the different corporations and schools in the different phases considered. It will be seen from this table that there is a decrease in population in all types of school corporations except the city, in which there is a marked increase. While there is an increase in a few of the corporations of township district, consolidated and town schools, this increase is more than offset by the number which show a decreasing population as well as the amount of the decrease. The total change in all the townships with district schools was a decrease of 3,250 or 5.7 per cent. The decrease in townships with consolidated schools was a total of 838

TABLE XXXVIII

CHANGES IN POPULATION AND STATISTICS OF TOWN SCHOOLS GIVEN IN PER CENT

Number of township	Change in population in ten years		Per cent of total population of legal school age	Per cent of school census enrolled	Per cent of pupils enrolled in daily attendance	Per cent of average daily attendance completing grades or high school
	Number	Per cent				
1	−827	−63.8	30.7	70.0	82.6	7.7
2	−37	−8.4	30.8	83.6	66.7	2.4
3	79	8.7	20.9	78.5	77.5	8.6
4	−51	−5.9	22.2	71.3	79.5	12.4
5	−288	−23.9	26.6	73.0	82.9	5.7
6	−40	−9.4	20.5	89.9	85.0	7.6
7	−139	−9.7	25.4	85.6	83.2	12.4
8	53	5.5	28.6	75.8	78.1	9.9
9	490	44.0	31.4	74.7	85.2	
10			34.0	66.0	75.1	
11	−121	−10.2	26.9	68.0	90.2	10.2
12	104	11.1	18.0		85.0	9.3
13	145	11.8	22.8	74.1	83.8	7.7
14	−28	−2.8	22.6	84.8	75.2	10.0
15	−40	−3.2	25.3	83.2	89.9	6.8
16	634	52.2	26.3		84.1	9.8
17	141	13.2	32.6	86.1	87.5	10.1
18	−219	−17.5	23.0		88.1	14.3
19	27	3.0		59.8	82.2	18.6
20	119	6.8	25.8	80.0	83.9	9.6
21	−104	−23.0	23.8	86.2	83.1	
22	−58	−6.8	29.5	91.2	88.1	10.9
23	−77	−6.7	22.9	89.0	95.3	9.4
24	61	9.0	26.5	87.1	87.5	16.1
25	−76	−8.5	24.6	80.8	85.0	9.3

or 4.4 per cent. The number of towns with a decrease in population slightly exceeded the number with an increase in population during the preceding ten years. The total change was a decrease of 262 or one per cent. Only one-sixth of the cities show a decrease in population, while the total change was an increase of 25,276 or 15.5 per cent. It will also be noted that the townships with district schools have a greater number of children of legal school age in proportion to the total population than the consolidated town or city schools, while the city ranks second and townships with consolidated schools and towns have about equal ratios. This would

TABLE XXXIX

CHANGES IN POPULATION AND STATISTICS OF CITY SCHOOLS GIVEN IN PER CENT

Number of city	Change in population in ten years		Per cent of total population of legal school age	Per cent of school census enrolled	Per cent of pupils enrolled in daily attendance	Per cent of average daily attendance completing grades or high school
	Number	Per cent				
1	523	13.4	22.6	72.8	82.8	11.3
2	330	10.0	24.0	64.0	82.2	13.2
3	2378	26.8	33.6		77.2	
4	1554	16.6	31.2	66.5	81.5	
5	902	11.6	24.5	65.8	78.5	6.3
6	3311	53.2	27.4	68.3	77.2	5.7
7	683	77.5	24.1	83.6	77.9	11.1
8	190	4.3	25.4	56.7	79.5	9.6
9	704	8.2	23.8	74.4	82.2	9.9
10	386	7.1	27.8	59.8	81.1	11.4
11	−53	−2.2	31.3	54.8	79.9	10.4
12	−362	−3.5	42.7	40.8	76.3	7.1
13	6401	37.5	25.4	69.0	64.0	6.1
14	3412	32.5	33.8	42.8	73.8	5.6
15	−396	−10.1	27.1	55.5	86.7	9.7
16	491	10.8	30.2	47.5	82.3	9.3
17	281	5.5	25.1	70.7	83.4	8.6
18	91	3.1	26.1	55.1	77.1	
19	332	6.5	26.3	78.1	85.6	6.8
20	384	7.8	24.3	67.3	80.8	11.3
21	997	24.1	26.8	86.0	82.3	
22	311	7.7	30.2	75.0	88.1	6.9
23	−697	−8.9	31.8	53.6	90.6	6.6
24	561	13.2	27.1		78.2	
25	1865	9.3	28.4	53.3	81.0	7.8

seem to indicate that the population of townships with consolidated schools and towns is made up more largely of older residents, many of whom have perhaps retired from active business and whose children are beyond legal school age.

The statistics bear out the contention made by advocates of consolidated schools that consolidation means a larger enrollment of children in the schools of the township, since the ratio of enrollment to school census for consolidated schools is 81.1 per cent, while that of the town is 79.5 per cent, township district schools 78.1, and that of the city schools is only 61 per cent. It will also be noted that the variation for consolidated schools is less than that

TABLE XL

SUMMARY OF CHANGES IN POPULATION AND CENTRAL TENDENCIES AND DEVIATIONS FROM CENTRAL TENDENCIES OF SCHOOL STATISTICS

	Change in population in ten years								Ratio of school census to total population		Ratio of enrollment to school census		Ratio of daily attendance to enrollment		Ratio of graduates to daily attendence	
	Increase			Decrease			Total									
	Number of corporation	Per cent of corporation	Per cent of change	Number of corporation	Per cent of corporation	Per cent of change	Change	Per cent of change	Average	Quartile	Average	Quartile	Average	Quartile	Average	Quartile
Township	8	26.6	5.7	22	73.3	7.6	−3250	−5.7	29.3	2.02	78.1	8.65	77.5	6.2	8.2	1.9
Consolidated	4	23.5	3.0	12	76.5	7.8	−838	−4.4	25.4	.5	81.1	6.1	82.5	5.1	9.6	2.0
Town	10	41.7	16.6	14	58.3	8.2	−262	−1.0	25.5	3.45	79.5	7.02	84.2	3.92	10.5	1.4
City	20	83.3	19.3	4	16.6	6.1	25279	15.5	28.4	2.65	61.0	8.55	80.4	2.65	8.6	2.45

for any other type. While the enrollment in consolidated schools surpasses that in all other types, it will be noted that in average daily attendance the consolidated schools rank second to the town schools, but excel both city and township district schools. This is probably due to the fact that town school corporations are small and offer few inducements to older boys and girls to drop out to engage in some economic pursuit. Taking the tables as they are given, we note that the town schools rank first in the retention of their pupils and that the consolidated schools rank second, while the township district and city schools are about equal.

The average length of the school year for township district schools is 139 days with a variation of 14 days as compared with 156.1 days for consolidated schools with a variation of 10, 160.6 days for town schools, and 179 for city schools.

In conclusion it may be said that the consolidated schools are found in townships in which there is less decrease in population than in townships with district schools, and in townships with older residents and comparatively fewer children of legal school age; that consolidation increases the enrollment, average daily attendance, the power of the school to retain its pupils, and the length of the school year, but the consolidated school does not equal its pupils, which surpasses both the township district and city schools with reference to these points.

CHAPTER VII

School Finances—Receipts

The question of financial support of schools is a vital one and will bear much study. No investigation concerning the educational situation in the different types of schools would be complete, which did not take into consideration the corporation wealth upon which the financial support of the school is based, the distribution of the total receipts of each corporation, the ratio of the amount raised for schools to the amount raised for other purposes, and a comparison of the amount received for tuition or teachers' salaries, with the amount received for buildings and equipment, as well as a study of the distribution of the state funds among the schools of each type. The data on which the first part of this phase of the investigation is based, is the property valuation and tax levies in each corporation, and the distribution of the state funds and other indirect receipts as given in total number of dollars received from each source.

The tax levies, instead of the total amounts received or the budget for the year, are made the basis for comparison on account of availability and completeness of the data. The total receipts for each item, if available, would be a little more satisfactory basis for comparison, since the somewhat variable factor, poll tax, which is not included when we consider property tax alone, would be eliminated. This, however, is a very minor factor since there are no wide variations among different corporations and the property tax without the poll tax is a better index of the support given the various accounts or departments in each corporation. The number of polls and amount assessed were given, but there was nothing to show how many paid the assessment. A comparison of the amount of tax levied on each poll by the state, county, and local corporation, shows little or no difference in the township with district schools and the township with consolidated schools, while the amount of the levy by cities is greater than either, and the amount of the levy by towns exceeds that of the cities. It will be observed that the same relationship exists among the various corporations in the amount of the tax levied on property in the different types considered, so that the elimination of poll tax in consideration of support of schools will not affect the results materially.

The tables giving the property valuation and tax levies differ from preceding tables in that they are exact and complete and have been compiled from reports according to the specifications of the law governing the same and are thus free from the variations which might otherwise have been noticeable. This is one phase of the investigation that is based on uniform reports and is a good illustration of what might be expected if such uniformity prevailed in other departments. While the items given for the township and consolidated schools differ somewhat from those given for town and city corporations, the similarity is so great that valid comparisons are easily made. In the tables which follow, it will be observed that the first column calls for total assessed valuation less mortgage exemptions. It might be explained that there is a law in force in Indiana at the present time which permits any resident holding property on which there is a mortgage to file an affidavit with the county auditor, which will exempt such property from taxation to the amount of seven hundred dollars valuation, provided the mortgage is equal to or greater than this amount.

The total tax which any resident of the state pays is the sum total of the levies made by the state, county, and local corporation. The state tax for 1911 was $0.3185 on each one hundred dollars valuation and was divided as follows:

State	$0.09
Debt	.015
School	.136
State university and state normal school	.0275
Benevolent institutions	.05

This tax, as will be observed, is the same for all corporations. It should be explained that the state levy for schools is distributed in two ways. A part is given as special aid to those school corporations whose local taxes are not sufficient to maintain schools equal to the standard specified by law, and the remainder is distributed on the census basis.

The county levy is the same for all corporations in each county. The local tax is levied, in the case of townships by the township trustee, and in the towns and cities by the town and city councils. In Table XLIV it will be observed that the local tax is distributed as follows: Township, Tuition, Special School, Poor, Road, Gravel road, and all other purposes. The township levy is made for the purpose of meeting the general running expenses of a township and

corresponds very closely to the corporation levy of the towns and cities. The salary of the trustee, the road supervisor, office expenses, traveling expenses, and the like, are paid from this fund. The tuition of pupils attending schools in other corporations may also be paid out of this fund. The tuition levy is made to pay the salaries of the teachers. The salaries of the advisory staff and the expenses of buildings and equipments are paid out of the special school fund. The distinction between roads and gravel roads is that the levy for "Roads" is for the purpose of maintaining all highways that have not been macadamized, while "Gravel roads" is the levy made to pay the bonds which were issued by a special vote of the citizens of the township for the purpose of building macadam roads. All levies for purely local purposes are given under the item "All other purposes". The distribution of local taxes in town and city corporations needs no explanation.

Anyone interested in the taxes of the townships in which rural schools are maintained, will observe by study of Table XLIV that there is little correlation between the assessed valuation of a corporation and the amount of the local tax for that corporation. A corporation with high valuation may have a high local levy, as in the case of township number two, or a low local levy, as in the case of township number twenty-eight, and in like manner it will be observed that a township with a low valuation may have a low tax levy, as in the case of township number fourteen, or a high local tax, as in the case of township number eighteen. If the size of the townships and the number of schools maintained were the same, these facts might justify an investigation, but since there is a considerable variation in the size of the townships and the density of the population, no inferences are justifiable on these data alone. The variability observed in the townships with district schools is also to be observed in the townships with consolidated schools, but not in such a marked degree. Notwithstanding the fact that the state levy is uniform in all corporations and that the variation in the county is not great, it will be observed that the total amount of taxes in towns greatly exceeds that in the townships, but is not equal to the total tax levies in the cities. The central tendencies and variations in the tax levies on one hundred dollars, is given in Table XLV. The variation in the amount of the county tax in the four types of schools considered is probably due to the additional office expenses necessary to keep the records of the counties in which

TABLE XLI

PROPERTY VALUATION AND TAX LEVIES PER ONE HUNDRED DOLLARS IN TOWNSHIPS WITH DISTRICT SCHOOLS

Number of township	Total assessed valuation less mortgage exemptions	Property Tax				Distribution of local Tax						
		State	County	Township	Total	Township	Tuition	Special school	Poor	Road	Gravel roads	All other purposes
1	$ 707,908	$0.3185	$0.4515	$1.31	$2.08	$0.09	$0.16	$0.17	$0.01	$0.28	$0.60	
2	1,530,435	.3185	.6315	1.82	2.77	.10	.40	.50	.02	.20	.60	
3	664,820	.3185	.6315	1.41	2.36	.22	.30	.20		.15	.54	
4	1,449,845	.3185	.4315	1.27	2.02	.11	.30	.13	.02	.40	.30	.01
5	267,900	.3185	.4315	1.37	2.24	.15	.25	.15	.02	.30	.50	
6	1,511,180	.3185	.5515	1.95	2.82	.15	.32	.40	.03	.25	.80	
7	502,710	.3185	.4615	1.64	2.42	.28	.30	.30	.02	.40	.30	.04
8	743,415	.3185	.5215	1.52	2.36	.10	.30	.30		.35	.47	
9	725,980	.3185	.4415	.89	1.65	.16	.16	.16	.01	.40		
10	1,410,340	.3185	.3915	1.31	2.02	.10	.25	.15		.30	.51	
11	572,005	.3185	.4915	.93	1.74	.24	.12	.10	.02	.10	.37	
12	874,540	.3185	.4915	.79	1.60	.25	.05	.55	.01	.10	.33	
13	1,241,205	.3185	.4415	.78	1.54	.10	.18	.19	.03	.28		
14	448,410	.3185	.3115	1.00	1.63	.17	.20	.20	.03	.40		
15	899,845	.3185	.4515	.91	1.68	.17	.24	.11	.05	.21	.10	.03
16	1,679,474	.3185	.3815	1.27	1.97	.15	.20	.10		.20	.57	.05
17	682,250	.3185	.3815	1.70	2.40	.10	.30	.50	.01	.25	.54	
18	320,965	.3185	.6915	1.55	2.56	.25	.25	.40		.35	.30	
19	1,072,040	.3185	.4415	1.22	1.98	.15	.15	.25		.10	.57	
20	1,953,050	.3185	.4515	1.15	1.92	.06	.20	.20	.02	.15	.45	.05
21	1,411,530	.3185	.3815	.79	1.49	.08	.16	.12	.02	.18	.23	
22	1,428,990	.3185	.4715	1.30	2.09	.12	.30	.30	.10	.30	.13	.05
23	2,723,360	.3185	.4015	1.00	1.72	.10	.26	.22		.10	.30	.02
24	1,082,790	.3185	.3615	.78	1.46	.16	.20	.20		.22		
25	1,044,945	.3185	.4815	1.14	1.94	.12	.25	.10	.01	.28	.38	
26	2,398,750	.3185	.3515	1.36	2.03	.10	.20	.45	.02	.16	.43	
27	1,914,290	.3185	.4815	1.00	1.80	.14	.19	.22		.11	.34	
28	3,422,805	.3185	.4515	.85	1.62	.07	.16	.16	.04		.42	
29	1,940,400	.3185	.6015	.86	1.78	.10	.22	.25	.04	.10	.15	
30	803,294	.3185	.4515	.103	1.80	.17	.30	.24	.02	.30		

TABLE XLII

Property Valuation and Tax Levies per One Hundred Dollars in Townships with Consolidated Schools

Number of township	Total assessed valuation less mortgage exemptions	Property Tax			Distribution of local Tax							
		State	County	Township	Total	Township	Tuition	Special school	Poor	Road	Gravel roads	All other purposes
1	$1,490,370	$0.3185	$0.4515	$1.58	$2.35	$0.10	$0.20	$0.50	$0.02	$0.26	$0.50	
2	1,020,910	.3185	.5215	1.36	2.20	.08	.25	.49		.08	.46	
3	1,742,085	.3185	.3915	1.41	2.12	.10	.23	.50		.18	.40	
4	1,064,645	.3185	.3915	1.65	2.36	.15	.15	.50		.30	.55	
5	568,900	.3185	.4415	1.34	2.10	.06	.40	.50		.20		.18
6	1,939,160	.3185	.4515	1.29	2.06	.08	.31	.50		.30	.10	
7	1,591,915	.3185	.2615	1.41	1.99	.10	.30	.50	.04	.17		.30
8	1,497,605	.3185	.3815	1.30	2.00	.13	.37	.40	.01	.18	.20	.01
9	1,327,495	.3185	.4815	1.04	.184	.09	.18	.33	.01	.25	.18	
10	2,299,910	.3185	.4815	1.02	1.82	.06	.25	.40	.02	.18	.11	
11	1,347,960	.3185	.4815	.80	1.60	.10	.20	.40	.01	.08		.01
12	1,227,580	.3185	.4815	.85	1.65	.08	.19	.50		.08		
13	843,831	.3185	.4515	1.25	2.02	.14	.31	.50		.30		
14	553,460	.3185	.4515	1.48	2.25	.15	.30	.50	.01	.35		.17
15	507,979	.3185	.4515	1.55	2.32	.10	.35	.55		.30		.25
16	1,032,701	.3185	.5715	1.15	2.04	.05	.20	.18	.01	.20	.51	
17	1,044,420	.3185	.3615	1.61	2.29	.20	.20	.50		.30	.19	.22

TABLE XLIII

PROPERTY VALUATION AND TAX LEVIES PER ONE HUNDRED DOLLARS IN TOWNS

Number of town	Total assessed valuation less mortgage exemptions	Property Tax				Distribution of local Tax			
		State	County	Town	Total	Corporation	Tuition	Special school	Poor
1	$431,735	$0.3185	$0.3915	$2.67	$3.38	$0.36	$0.50	$0.50	
2	138,895	.3185	.4915	1.17	1.98	.50	.40	.25	$0.02
3	363,820	.3185	.6015	2.22	3.14	.45	.50	.65	
4	370,825	.3185	.4315	1.86	2.61	.75	.50	.28	.02
5	399,810	.3185	.6315	2.82	3.77	.50	.50	.80	.02
6	210,485	.3185	.4615	1.51	2.29	.10	.40	.25	.03
7	553,610	.3185	.3915	2.43	3.14	.50	.50	.73	.02
8	291,670	.3185	.5515	2.36	3.23	.25	.50	.65	.01
9	463,055	.3185	.3515	2.18	2.85	.73	.50	.50	.03
10	293,350	.3185	.4915	.69	1.50	.50	.07	.10	.02
11	386,670	.3185	.3815	1.98	2.68	.30	.40	.50	.05
12	538,934	.3185	.4515	1.16	1.93	.50	.20	.30	.01
13	391,860	.3185	.4515	2.75	3.52	.98	.50	.50	.02
14	586,790	.3185	.3815	1.75	2.45	.60	.50	.40	.02
15	414,150	.3185	.4415	3.48	4.24	.50	.50	.50	.02
16	639,890	.3185	.4715	2.43	3.22	.35	.50	.30	.05
17	428,475	.3185	.5515	2.35	3.22	.35	.45	.55	
18	681,260	.3185	.4515	2.39	3.16	.60	.35	.50	.02
19	305,615	.3185	.4715	2.35	3.14	.30	.50	.50	.01
20	592,510	.3185	.4515	2.65	3.42	.75	.50	.50	.05
21	171,040	.3185	.9715	2.23	3.52	.90	.50	.50	.05
22	314,410	.3185	.4415	1.86	2.62	.45	.50	.50	
23	440,185	.3185	.4415	2.01	2.77	.35	.50	.50	.01
24	288,415	.3185	.5215	2.20	3.04	.30	.50	.35	.03
25	401,970	.3185	.4515	1.83	2.60	.25	.50	.50	

TABLE XLIII (*Continued*)

Number of town	Distribution of local Tax									
	Gravel roads	Road or street	Water	Light	Sinking fund	Bond	School bonds	Library	Park	All other purposes
1	$0.56		$0.55	$0.20						
2										
3	.22	$0.25		.15						
4	.30							$0.01		
5	.60	.10		.30						
6	.43	.25								$0.05
7	.38			.30						
8	.70			.15		$0.10				
9	.42									
10										
11	.72							.01		
12						.15				
13	.50						$0.25			
14	.23									
15	.62	.07	.55	.35		.12	.25			
16	.33	.25	.20	.30	$0.05		.10			
17	.80			.20						
18	.45		.28				.05	.05		.09
19	.48	.20		.10	.25			.01		
20	.30		.20	.12	.23					
21	.28									
22		.20					.20	.01		
23		.15	.25	.15						.10
24	.47	.25				.30				
25	.58									

TABLE XLIV

Property Valuation and Tax Levies per One Hundred Dollars in Cities

Number of city	Total assessed valuation less mortgage exemptions	Property Tax				Distribution of local Tax			
		State	County	City	Total	Corporation	Tuition	Special school	Poor
1	$ 2,005,620	$0.3185	$0.4415	$2.19	$2.95	$0.85	$0.40	$0.40	$0.04
2	1,331,365	.3185	.4515	2.35	3.12	.94	.50	.50	.05
3	4,304,775	.3185	.8315	2.72	3.87	.80	.50	.50	.05
4	4,019,555	.3185	.6315	2.57	3.52	.63	.50	.50	.03
5	5,730,520	.3185	.3115	1.83	2.46	.64	.24	.45	.03
6	1,882,730	.3185	.6015	2.20	3.12	.20	.50	.50	.03
7	5,960,506	.3185	.4515	2.02	2.79	1.15	.40	.23	.02
8	1,073,205	.3185	.4415	3.48	4.24	.75	.15	.60	.02
9	4,464,895	.3185	.4415	2.30	3.06	.47	.40	.64	.01
10	3,485,470	.3185	.5215	2.22	3.06	1.10	.38	.37	.05
11	948,185	.3185	.4915	1.97	2.78	.64	.30	.45	.01
12	4,292,850	.3185	.4315	2.25	3.00	1.60	.10	.50	.02
13	8,373,510	.3185	.3815	2.22	2.92	1.15	.33	.47	.05
14	5,576,235	.3185	.5715	2.97	3.86	1.50	.40	.45	.02
15	1,515,255	.3185	.4615	2.28	3.06	1.06	.40	.35	.05
16	2,343,180	.3185	.4715	2.33	3.12	.50	.50	.50	.10
17	2,378,950	.3185	.4115	2.23	2.96	.80	.50	.45	.02
18	1,092,045	.3185	.9715	2.43	3.72	1.10	.30	.40	.02
19	2,177,650	.3185	.4715	2.88	3.67	.47	.45	.45	.04
20	2,847,040	.3185	.4815	2.43	3.23	.65	.35	.45	.03
21	2,709,640	.3185	.3515	2.31	2.98	.75	.40	.44	.03
22	1,733,995	.3185	.4515	3.13	3.90	1.55	.37	.50	.04
23	3,511,375	.3185	.5515	2.64	3.51	1.28	.38	.35	.03
24	1,792,840	.3185	.3615	2.80	3.48	.35	.40	.50	.01
25	12,993,820	.3185	.4815	2.03	2.83	.85	.24	.50	.03

TABLE XLIV (*Continued*)

Number of city	Distribution of local Tax									
	Gravel roads	Road or street	Water	Light	Sinking fund	Bonds	School bonds	Library	Park	All other purposes
1		$0.12		$0.10		$0.10		$0.10	$0.01	$0.07
2	$0.10				$0.20			.06		
3	.32		$0.10	.16		.09				.20
4	.14			.35	.09	.12	$0.15	.06		
5			.185		.235			.05		
6	.22	.10	.28				.30	.07		
7	.05						.15	.02		
8	.51	.40	.35	.35			.25	.10		
9		.15	.25		.05	.25		.07	.01	
10	.32									
11	.33						.23		.01	
12								.03		
13	.17							.05		
14	.37				.15			.08		
15	.10				.05	.12	.08	.05		.02
16	.13	.28	.10	.10			.02	.10		
17	.20					.20		.06		
18	.36						.25			
19	.14	.20	.10	.20	.10	.37	.28	.08		
20	.40		.30					.20	.05	
21	.43	.20						.06		
22	.42						.25			
23	.60									
24	.59	.20	.25	.15		.35				
25					.05		.25	.25	.05	.01

large centers of population are located. The average levy by the county in the counties in which are located the township district schools is $0.4515, which is the same as in counties in which consolidated schools are located, with the same variability, while the average county levy for the towns considered, is $0.485 and the city is $0.493 with a variability of $0.04. The central tendency of the local levies increases in the order in which the different corporations are given, that is, the township levies average $1.20 with a variability of $0.262, the consolidated at $1.61 with a variation of $0.23, and the local levy of the cities is $2.43 with a variation of $0.22. The same relationship exists among the totals of the different types of corporations, ranging from the central tendency $1.98 and a variability of $0.25 in the case of townships to an average of $3.25 for cities with a variability of $0.33. The distribution of the local levies shows that the tax levy for school purposes in townships with consolidated schools, which averages $0.708 with a variability of $0.074 for the sum of the tuition and special school funds, is much greater than that in townships with district schools which average $0.465 with a variability of $0.07, but does not equal the tax levy for schools in cities which average $0.837 with a variability of $0.117, and that the levy for school purposes in towns, which average $0.915 with a variability of $0.095, exceeds that of all other types. The tax levy for the township or corporation purposes is lower in townships with consolidated schools than in townships with district schools. The tax levy in cities for the same purpose exceeds that of the towns. Notwithstanding the fact that it is generally assumed that consolidated schools are located in townships with the better improved highways, it will be observed that the levy for roads in townships with district schools is $0.585 with a variability of $0.145 as compared with a levy of $0.37 with a variability of $0.16 in townships with consolidated schools. The fact that the average levy for road or street purposes in towns, which is $0.447 with a variability of $0.148, exceeds the levy for cities which is $0.302 with a variability of $0.141, seems somewhat unusual, but is probably due to the fact that the town as a center of population is located in townships which spend considerable money for macadam roads yet do not have sufficient property within the corporations to equalize the tax levy for this purpose, as do the larger centers of population with greater property valuation.

TABLE XLV

CENTRAL TENDENCIES AND DEVIATIONS IN CORPORATION WEALTH AND TAX LEVIES PER ONE HUNDRED DOLLARS

	Corporation wealth		State		County		Local		Total	
	Average	Quartile	Average	Quartile	Average	Quartile	Average	Quartile	Average	Quartile
Township	$1,247,649	$ 465,710	$0.3185	0	$0.4515	$0.049	$1.20	$0.262	$1.98	$0.25
Consolidated	1,241,231	339,618	.3185	0	.4515	.045	1.61	.23	2.29	.21
Town	383,977	111,900	.3185	0	.485	.04	2.13	.295	2.94	.305
City	3,541,808	1,356,032	.3185	0	.493	.04	2.43	.22	3.25	.33

TABLE XLV (*Continued*)

	Township or corporation		School Funds						Poor		Road or street		All other purposes	
			Tuition		Special		Total							
	Average	Quartile	Average	Quartile	Average	Quartile	Average	Quartile	Average	Quartile	Average	Quartile	Average	Quartile
Township	$0.146	$0.032	$0.216	$0.05	$0.244	$0.072	$0.455	$0.07	$0.022	$0.015	$0.585	$0.145	$0.010	?
Consolidated	.103	.031	.258	.055	.450	.05	.708	.074	.008	.005	.37	.160	.067	$0.09
Town	.485	.15	.451	.05	.456	.05	.915	.095	.02	.015	.447	.148	.270	.21
City	.871	.25	.376	.095	.485	.025	.837	.117	.053	.015	.302	.141	.363	.159

TABLE XLVI

WEALTH PER CAPITA SCHOOL POPULATION AND PERCENTILE DISTRIBUTION OF TAX LEVIES IN TOWNSHIP WITH DISTRICT SCHOOLS

Number of township	Wealth per child of school age	State	County	Local	Township	Tuition	Special school	Poor	Roads	Gravel roads	All other purposes
1	$3371	15.6	21.4	63.0	6.7	12.2	13.0	.8	21.3	46.0	
2	1835	11.5	22.8	65.7	5.5	22.0	27.5	1.1	11.0	33.0	
3	2208	13.5	26.8	59.7	15.2	21.5	14.3		10.6	38.4	
4	3052	15.8	21.4	62.8	8.7	23.6	10.3	1.6	31.5	23.6	.8
5	971	14.3	19.3	61.4	11.0	18.2	11.0	1.4	22.0	36.4	
6	1677	11.3	19.7	69.0	7.6	16.4	20.5	1.5	12.9	41.1	
7	2205	13.1	19.1	67.8	17.3	18.4	18.4	1.3	24.6	18.4	2.5
8	1641	13.5	22.2	64.3	6.6	19.7	19.7		23.0	31.0	
9	3089	19.3	26.7	54.0	18.0	18.0	18.0	1.2	44.8		
10	2527	15.7	19.4	64.9	7.5	19.0	11.5		23.0	39.0	
11	1411	18.3	28.3	53.4	25.8	12.9	10.8	2.1	10.8	37.6	
12	2338	19.8	30.7	49.5	31.6	6.3	6.3	1.2	12.6	42.0	
13	3854	20.6	28.6	50.8	12.2	23.1	24.4	3.7	36.0		
14	2893	19.5	19.2	61.3	17.0	20.0	20.0	3.0	40.0		
15	6121	18.9	26.9	54.2	18.7	26.4	12.1	5.5	23.1	11.0	3.2
16	4230	16.1	19.4	54.5	12.8	15.7	7.8		15.7	44.9	3.9
17	2490	13.2	15.8	71.0	5.8	17.7	29.4	.6	14.7	31.8	
18	1171	12.4	27.1	60.5	16.2	16.2	25.8		22.6	19.3	
19	4204	16.0	22.3	61.7	12.3	12.3	20.5		8.2	46.7	
20	4475	16.5	23.5	60.0	7.0	17.4	17.4	1.7	13.1	39.1	4.3
21	4674	21.3	25.6	53.1	10.1	20.2	15.2	2.5	22.8	29.1	
22	2350	15.2	22.6	62.2	9.2	23.1	23.1	7.7	23.1	10.0	3.8
23	3588	18.5	23.4	58.1	10.0	26.0	22.0		10.0	30.0	2.0
24	3550	21.7	24.8	53.5	20.5	25.6	25.6		28.3		
25	5794	16.3	24.8	58.9	10.4	22.0	8.7	.9	24.6	33.4	
26	3318	15.7	17.3	67.0	7.4	14.7	33.2	1.4	11.8	31.6	
27	4483	17.7	26.8	55.5	14.0	19.0	22.0		11.0	34.0	
28	4338	19.7	27.8	52.5	8.3	18.8	18.8	4.7		49.4	
29	5481	17.9	33.9	48.2	11.6	25.5	29.1	4.6	11.6	17.5	
30	4184	17.6	25.2	57.2	16.5	29.1	23.4	1.9	29.1		

TABLE XLVII

WEALTH PER CAPITA SCHOOL POPULATION AND PERCENTILE DISTRIBUTION OF TAX LEVIES IN TOWNSHIP WITH CONSOLIDATED SCHOOLS

Number of township	Wealth per child of school age	State	County	Local	Township	Tuition	Special school	Poor	Roads	Gravel roads	All other purposes
1	$5001	13.6	19.3	67.1	6.6	12.7	31.5	1.3	16.4	31.5	
2	6041	14.4	23.8	61.8	5.8	18.5	36.0		5.8	33.9	
3	3995	15.0	18.5	66.5	7.1	16.3	35.5		12.8	28.4	
4	3735	13.5	16.6	69.9	9.1	9.1	30.3		18.2	33.4	
5	1909	15.0	21.0	64.0	4.4	30.0	37.3		15.0		13.2
6	4309	15.6	21.9	62.5	6.2	24.0	38.8		23.3		7.7
7	3892	16.0	13.0	71.0	7.1	21.3	35.5	2.8	12.1		21.2
8	3820	15.8	19.2	65.0	10.0	28.5	30.8	.8	13.9	15.4	.7
9	6117	17.3	26.2	56.5	8.7	17.4	31.6	1.0	24.0	17.3	
10	4292	17.5	26.5	56.0	5.9	24.5	39.1	2.0	17.6	10.8	
11	7530	19.9	30.1	50.0	12.3	25.0	50.0	1.2	10.0		1.3
12	7178	19.3	29.2	51.5	9.4	22.4	58.8		9.4		
13	3961	15.6	22.4	62.0	11.2	24.8	40.0		24.0		
14	3459	14.1	20.1	65.8	10.2	20.3	33.7	.7	23.6		11.5
15	3938	13.7	19.5	66.8	6.4	22.5	35.5		19.4		16.2
16	5801	15.6	28.1	56.3	4.4	17.3	15.6	.9	17.4		44.4
17	3986	13.7	15.8	70.5	12.3	12.3	31.2		18.7	11.8	13.7

Levies in towns and cities for water, lighting, and the like, are grouped in Table XLV under the heading, "All other purposes," simply because there is nothing in the other corporations which is comparable to these expenditures. Tax levies for all these purposes are much greater in the cities than in the towns.

Tables XLVI, XLVII, XLVIII, and XLIX are derived from the preceding tables and express in per cents the distribution of the tax levies for the various purposes. For example township number one in Table XLVI is read as follows: The wealth per child of school age is $3,371, 15.6 per cent of the total tax levy is levied by the state, 21.4 per cent by the county, and 63 per cent by the township. Six and seven-tenths of the total local levy in this township is levied for township purposes, 12.2 per cent is levied for tuition purposes, 13 per cent for special school fund, .8 of one per cent for poor, 21.3 per cent for roads, and 46 per cent for gravel roads, or in other words, in this township one-eighth of the total levy is for salaries of the teachers in that township, which is about one-half as much as is raised for the roads and about one-fourth as much as is raised for

TABLE XLVIII

WEALTH PER CAPITA SCHOOL POPULATION AND PERCENTILE DISTRIBUTION OF TAX LEVIES IN TOWNS

Number of town	Wealth per child of school age	State	County	City	Corporation	Tuition	Special school	Poor	Gravel road	Road or Street	Water	Light	Sinking fund	Municipal bonds	School bonds	Library	Park	All other purposes
1	$1087	9.4	11.6	79.0	13.5	18.7	18.7		21.0		20.5	7.5						
2	1029	16.0	24.9	59.1	42.7	34.2	21.4	1.7										
3	1905	10.1	19.1	70.8	20.2	22.4	29.3		10.0	11.3		6.8						
4	1941	12.2	16.5	71.3	40.5	27.0	15.2	1.1	16.2									
5	1222	8.4	16.8	74.8	17.7	17.7	28.4	.7	21.2	3.5		10.6						
6	2419	13.9	20.1	66.0	6.5	26.5	16.6	2.0	28.5	16.6								3.3
7	1508	10.1	12.4	77.5	20.6	20.6	30.0	.8	15.6			12.4						
8	1060	9.9	17.1	73.0	10.6	21.2	27.4	.4	29.6			6.6		4.2				
9	1326	11.1	12.2	76.7	33.5	23.0	23.0	1.4	19.1									
10	1043	21.2	32.8	46.0	72.5	10.2	14.5	2.8										
11	1156	11.8	14.3	73.9	15.1	20.2	25.3	2.5	36.5							.5		
12	3027	16.5	23.5	60.0	43.1	11.2	25.8	.9						13.0				
13	1396	9.1	12.9	78.0	35.7	18.2	18.2	.6	18.2						9.1			
14	2256	13.0	15.7	71.3	34.4	28.5	22.8	1.1	13.2									
15	1327	7.5	10.4	82.1	14.4	14.4	14.4	.6	17.7	2.0	15.8	10.1		3.4	7.2			
16	1492	10.2	14.6	75.2	14.2	20.4	12.2	22.0	13.5	10.0	8.2	13.5	2.0		4.1			
17	1234	9.9	17.1	73.0	14.9	19.2	23.5		34.0			8.4						
18	2293	10.1	14.3	75.6	25.1	14.7	21.0	.8	18.9		11.8				2.1	2.1		3.6
19		10.0	15.0	75.0	12.8	21.3	21.3	.5	20.5	8.5		4.2	10.6			.5		
20	1314	9.3	13.2	77.5	28.4	18.9	18.9	1.9	11.3		7.5	4.5	8.6					
21	1583	9.2	27.6	63.2	40.3	22.5	22.5	.23	12.5									
22	1242	12.1	16.9	71.0	24.2	27.0	27.0			10.7					10.7	.5		
23	1654	11.5	16.0	72.5	17.5	24.9	24.9	.5		7.4	12.4	7.4						5.0
24	1611	10.2	17.3	72.5	13.6	22.7	15.9	1.4	21.4	11.4				13.6				
25	1819	12.2	17.4	70.4	13.7	27.4	27.4		31.5									

TABLE XLIX

WEALTH PER CAPITA SCHOOL POPULATION AND PERCENTILE DISTRIBUTION OF TAX LEVIES IN CITIES

Number of city	Wealth per child of school age	State	County	City	Corporation	Tuition	Special school	Poor	Gravel roads	Street	Water	Light	Sinking fund	City bonds	School bonds	Library	Park	All other purposes
1	$2264	10.8	15.0	74.2	39.0	18.4	18.4	1.8		5.5		4.7		4.7		4.7	.5	.3
2	1666	10.2	14.5	75.3	40.0	21.3	21.3	2.2	4.2				8.4			2.6		
3	1111	8.2	21.5	70.3	29.5	18.4	18.4	1.8	11.8		3.7	5.8		3.3				7.3
4	1385	9.3	17.6	73.1	24.4	19.5	19.5	1.2	5.5			13.6	3.5	4.7	5.8	2.3		
5	3025	12.9	12.7	74.4	30.0	13.1	24.6	1.7			10.1		12.8			2.7		
6	1101	10.2	19.3	70.5	9.1	22.7	22.7	1.4										
7	2782	11.3	16.2	72.5	54.9	19.8	11.3	1.0	2.5						7.5	1.0		
8	1678	7.5	10.3	82.2	21.5	4.3	17.2	.6	14.6	11.5	10.1	10.1			7.2	2.9		
9	2188	10.5	14.4	75.1	20.5	17.4	27.8	.4		6.5	10.9		2.1	10.9		3.1	.4	
10	2260	10.4	17.4	72.2	49.6	17.1	16.6	2.2	14.5									
11	1274	11.4	17.7	70.9	32.5	15.3	22.8	.5	16.7						11.7		.5	
12	965	10.6	14.4	75.0	71.1	4.4	22.3	.9								1.3		
13	1391	10.7	13.3	76.0	51.9	14.9	21.1	2.2	7.7							2.2		
14	1567	8.2	14.8	77.0	50.5	13.5	15.2	.7	12.5				5.0			2.6		
15	1425	10.3	15.2	74.5	46.5	17.5	15.4	2.2	4.4				2.2	5.3	3.5	2.2		.8
16	1704	10.2	15.3	74.5	21.5	21.5	21.5	4.3	5.5	11.9	4.3	4.3			.9	4.3		
17	1861	10.8	13.9	75.3	35.9	22.5	20.2	.9	8.9					8.9		2.7		
18	1437	8.6	26.1	65.3	45.2	12.4	16.5	.8	14.8						10.3			
19	1614	8.6	12.1	78.6	16.4	15.6	15.6	1.4	4.8	7.0	3.5	7.0	3.5	12.9	9.7	2.7		
20	2378	9.8	14.8	75.4	26.7	14.4	18.5	1.2	16.5		12.4				8.3	2.0		
21	2456	10.7	11.8	77.5	32.5	17.3	19.0	1.3	18.6	8.7						2.6		
22	1413	8.2	11.7	80.1	49.6	11.6	16.0	1.2	13.3						8.0			
23	1415	9.3	15.7	75.0	48.5	14.4	13.3	1.1	22.7									
24	1548	9.2	10.3	80.5	12.4	14.3	17.8	.4	21.1	7.3	8.9	5.4	12.4					
25	2288	11.2	17.1	71.7	41.8	11.8	24.6	1.5					2.5		12.3	2.5	2.5	.5

gravel roads. The variation observed in the state levies in the different types of corporations is due to the great variation in the local levies. When the local levy is low then the ratio of the state levy to the total levy will be high.

Tables XLVII, XLVIII, and XLIX are to be read in a similar manner. By expressing the tax levies in per cent of the total, we have a basis for direct comparison of the amount of money raised for the various purposes in any corporation as well as the relative support in different corporations with the same type of school and relative distribution of funds raised in the one type as compared with the distribution found in another. These tables make it possible to avoid errors in inferring that one corporation is more liberal in the support of some department or account, when considered in relation to the amount raised for other purposes, it is relatively low. In number five of the townships with district schools it will be observed that only 11 per cent of the total local levy was for school buildings and 18.2 per cent of the total local levy was for the payment of teachers. While in township number twenty-six one-third of the total levy is for the building and equipment of school houses and only 14.7 per cent for the salaries of teachers. The central tendencies and variabilities in terms of per cent are given in Table L. The average wealth per capita school population in townships with consolidated schools is $4412, as compared with $3251 for township district schools, $1912 for cities, and $1432 for town schools, which means that pupils in consolidated schools have fifty per cent more wealth on which the support of their education depends than pupils in townships with district schools, more than twice the wealth supporting the education of the city child and three times the wealth supporting the education of the town child. The consolidated schools not only have a greater wealth per capita school population, but also have a greater variability, while the town schools have the lowest amount of wealth per child of school age, and also have the least variability. From these facts it is safe to conclude that the towns are burdened much more for the proper support of the schools than any other type of corporation considered. It is necessary in comparing the relative standing of the different types of corporations as to per cent of total tax levied by the state, to also consider the per cent of the total tax levied by local authorities. While the state tax is the same for all corporations the per cent of the total tax levied by the state will vary according to the amount

TABLE L

Central Tendencies and Deviations of Wealth per Capita and Tax Levies on Percentile Basis

	Wealth per capita school population		State		County		Local		Township or Corporation	
	Average	Quartile	Average	Quartile	Average	Quartile	Average	Quartile	Average	Quartile
Township	$3251	$ 988	16.2	2.1	23.4	3.7	60.4	5.2	12.1	4.8
Consolidated	4412	1003	15.6	1.9	21.8	3.9	62.6	5.3	8.1	2.0
Town	1432	358	11.3	1.4	17.2	2.9	71.5	2.6	25.0	10.8
City	1912	432	10.1	.9	15.1	2.2	74.8	2.1	36.0	13.6

TABLE L (*Continued*)

	School tax funds						Poor		Road or street		All other purposes	
	Tuition		Special		Total							
	Average	Quart e	Average	Quartile	Avagere	Quartile	Average	Quartile	Average	Quartile	Average	Quartile
Township	17.9	3.4	20.2	6.1	39.1	7.9	1.8	1.2	47.3	7.4	.7	
Consolidated	20.4	4.0	35.9	3.6	56.3	9.6	.6	.6	27.2	12.6	6.4	6.8
Town	21.4	3.5	21.8	5.0	43.2	6.4	1.6	.7	19.6	5.4	10.6	9.4
City	15.5	3.3	18.8	2.9	34.3	4.4	2.1	.6	12.2	6.2	15.4	10.0

of the county and local levies. The higher the per cent of the total levy levied by the state, the lower must necessarily be the local tax. In the townships with district schools the average per cent of the total levy, levied by the state, is 16.2; while the local levy is only 60.4 per cent as compared with the state levy of 11.3 per cent in towns, and 10.1 per cent in cities, and a local levy of 71.5 per cent and 74.8 per cent in these corporations, respectively. In other words, towns and cities require a greater amount of money to conduct their affairs than do townships in which are district, and townships in which are consolidated schools. To determine the generosity of any corporation in the support of its schools, it is necessary to compare the amount of money raised for the school purposes with the amount of money raised for all other purposes in that corporation. The average levy in townships with district schools for the general business affairs of the township is 12.1 per cent with a variability of 4.8 per cent as compared with an average levy of 8.1 per cent with a variability of 2 per cent in townships with consolidated schools and 25 per cent in towns with a variability of 10.8 per cent and 36 per cent in cities with a variability of 13.6 per cent. In other words, it costs a township with district schools about 50 per cent more to conduct the general business of the township than it costs the township with consolidated schools.

When we compare the different types of corporations in the amount of levies made for school purposes, we see that cities which average 15.5 per cent of the total levy for the payment of teachers and 18.8 per cent for special school funds, spend less, relatively speaking, for the support of their schools than any other type of corporation. The townships with district schools with an average of 17.9 per cent of the total levy for the payment of teachers and 20.2 per cent for the special school fund, or a total of 39.1 per cent, rank second. Towns which devote 21.4 per cent of the total levy for the payment of teachers and 21.1 for the special school fund or a total of 43.3 per cent rank third, while townships with consolidated schools with 20.4 per cent of the total levy for the payment of teachers and 35.9 per cent for the special school fund or a total of 56.3 per cent of the total levy for school purposes, are most liberal in the support of their schools.

If the assumption that consolidated schools are located in townships with better public highways is true, it is because these townships have better highways on account of natural conditions than on

TABLE LI

DATA FOR SHOWING RELATION OF WEALTH PER CAPITA AND TAX LEVIED FOR TOWNSHIP DISTRICT SCHOOLS

Number of township	Wealth per capita	Per cent the state levy is of total levy	Per cent the local levy is of total levy	Per cent the levy for tuition and special school fund is of total local levy
5	$ 971	14 .3	61 .4	19 .2
18	1171	12 .4	60 .5	42 .0
11	1411	18 .3	53 .4	23 .7
8	1641	13 .5	64 .3	39 .4
6	1677	11 .3	69 .0	36 .9
2	1835	11 .5	65 .7	49 .5
7	2205	13 .1	67 .8	36 .8
8	2208	13 .5	59 .7	39 .4
Average	1639 .8	13 .48	62 .72	36 .1
15	$6121	18 .9	54 .2	38 .5
25	5794	16 .3	58 .9	30 .7
29	5481	17 .9	48 .2	54 .6
21	4674	21 .3	53 .1	35 .4
27	4483	17 .7	55 .5	41 .0
20	4475	16 .5	60 .0	34 .8
28	4339	19 .7	52 .5	37 .2
16	4230	16 .1	64 .5	23 .5
Average	4949 .6	18 .1	55 .36	36 .9

TABLE LII

DATA FOR SHOWING RELATION OF WEALTH PER CAPITA AND TAX LEVIED FOR CONSOLIDATED SCHOOLS

Number of township	Wealth per capita	Per cent the state levy is of total levy	Per cent the local levy is of total levy	Per cent the levy for tuition and special school funds is of total local levy
5	$1909	15 .0	64 .0	67 .3
14	3459	14 .1	65 .8	54 .0
4	3735	13 .5	69 .9	39 .4
8	3820	15 .8	65 .0	59 .3
7	3892	16 .0	71 .0	54 .8
15	3938	13 .7	66 .8	58 .0
Average	3458 .8	14 .70	67 .10	55 .46
11	$7530	19 .9	50 .0	75 .04
12	7178	19 .3	51 .5	81 .24
2	6041	14 .4	61 .8	54 .55
16	5801	15 .6	56 .3	32 .9
9	6117	17 .3	56 .5	49 .0
1	5001	13 .6	61 .1	44 .2
Average	6278	15 .0	57 .95	56 .1

TABLE LIII

DATA FOR SHOWING RELATION OF WEALTH PER CAPITA AND TAX LEVIED FOR TOWN SCHOOLS

Number of town	Wealth per capita	Per cent the state levy is of total levy	Per cent the local levy is of total levy	Per cent the levy for tuition and special school funds is of total local levy
2	$1029	16.0	59.1	55.6
10	1043	21.2	46.0	24.7
8	1060	9.9	73.0	48.6
1	1087	9.4	79.0	37.4
11	1156	11.8	73.9	45.5
5	1222	8.4	74.8	46.1
17	1234	9.9	73.0	42.7
22	1242	12.1	71.0	54.0
Average	1133.1	12.34	68.72	44.3
12	3027	16.5	60.0	43.0
6	2419	13.9	66.0	43.1
14	2256	13.0	71.3	51.3
18	2293	10.1	75.6	35.7
4	1941	12.2	71.3	42.2
3	1905	10.1	70.8	51.7
25	1819	12.2	70.4	54.8
23	1654	11.5	72.5	49.8
Average	2164.2	12.44	69.74	46.45

TABLE LIV

DATA FOR SHOWING RELATION OF WEALTH PER CAPITA AND TAX LEVIED FOR CITY SCHOOLS

Number of city	Wealth per capita	Per cent the state levy is of total levy	Per cent the local levy is of total levy	Per cent the levy for tuition and special school funds is of total local levy
12	$ 765	10.6	75.0	26.7
6	1101	10.2	70.5	45.4
3	1111	8.2	70.3	36.8
11	1274	11.4	70.9	38.1
4	1385	9.3	73.1	39.0
22	1413	8.2	80.1	27.6
23	1415	9.3	75.0	27.7
18	1437	8.6	65.3	28.9
Average	1262.6	9.5	72.5	33.8
5	3025	12.9	74.4	37.7
7	2782	11.3	72.5	31.1
21	2456	10.7	77.5	36.3
20	2378	9.8	75.4	32.9
25	2288	11.2	71.7	36.4
1	2264	10.8	74.2	36.8
10	2260	10.4	72.2	33.7
9	2188	10.5	75.1	45.2
Average	2455	11.2	74.1	35.5

account of the amount of money spent for the building and upkeep, as is shown by the amount of the total levies devoted to the building and upkeep of roads. We find that 27.2 per cent of the total levy in townships with consolidated schools is for the purpose of building and repairing roads, as compared with 47.3 per cent of the total levy in townships with district schools devoted to the same purpose. It may seem a little strange that towns with an average of 19.6 per cent of the total levy, devoted to roads and streets, should spend more, relatively speaking, than do the cities which devote 12.2 per cent of the total levy for this purpose. This is probably due, as was stated before, to the fact that the towns are located in communities where there are a great many macadam roads, so that the amount of money devoted to this purpose is relatively high on account of the limited wealth of these corporations.

It is generally assumed that there is a negative correlation between the wealth per capita of any corporation and the amount of tax levied by that corporation for local purposes, that is, the greater the wealth per capita, the lower the local tax rate and vice versa. In order to determine to what extent this assumption is true the following tables were compiled.

The wealth per capita, the per cent of the total levy levied by the state and by the local corporation and the per cent of the total local levy levied for school purposes were taken for eight of the corporations with least wealth per capita and the eight corporations with the greatest wealth per capita in townships with district schools, and the average in each item for each group determined. In a similar way, six townships with consolidated schools, eight towns, and eight cities with the least wealth per capita and six townships, eight towns, and eight cities with the greatest wealth per capita were selected, and the average in each item of each group determined.

TABLE LIV(a)

RATIO OF WEALTHIER GROUP TO POORER GROUP OF CORPORATIONS IN WEALTH PER CAPITA AND TAX LEVIES

	Wealth per capita	State	Local	School
Township	3.02	1.33	.89	1.02
Consolidated	1.82	1.02	.87	1.01
Town	1.72	1.00	1.02	1.05
City	1.94	1.19	1.02	1.05

TABLE LV

AMOUNT OF MONEY RECEIVED FROM THE VARIOUS SOURCES FOR TUITION FUND IN TOWNSHIPS WITH DISTRICT SCHOOLS

Number of township	Indirect							Direct	Grand Total
	Common school fund	Congressional interest	Liquor license	Dog fund	Special state aid	Transfers	Miscellaneous	Total	Local tax	
1	$ 879	$ 39		$ 54		$ 14	$ 39	$ 1025	$ 1181	$ 2206
2	2911	46		114			71	3142	3625	6767
3	1170	64		41		149		1424	1672	3096
4	1817	34	$ 271	57		48	59	2286	3759	6045
5	1011	96	151	30			32	1320	831	2151
6	3540	121		122		36	1554	5373	3646	9019
7	1039	103	204	57			104	1507	1653	3160
8	1762	100		85		187	103	2237	2181	4418
9	947	24		28		10	65	1074	1095	2169
10	2299	71		112			155	2637	3600	6237
11	1619	30	335	129		385	71	2569	695	3264
12	1498	114	328	118		371	171	2600	2175	4775
13	1147	136		53		229	169	1734	3075	4809
14	575	116		58			33	782	1320	2102
15	630	66		14			83	793	1541	2334
16	1673	63				64	174	1974	3296	5270
17	1097	86		68		488	264	2003	1819	3822
18	1035	46		69			23	1173	820	1993
19	992	26	1049	29		223	75	2394	1443	3837
20	1669	32		55			397	2153	2855	5008
21	1182	57				22	181	1442	2135	3577
22	2381	111		48		42	32	2614	4649	7263
23	2878	276	558	204			340	4256	8037	12293
24	1178	83		72				1333	2418	3751
25	595	45		43		28	49	760	2469	3229
26	2824	168		75			170	3237	5391	8628
27	1666	70	435	32		143	204	2550	3154	5704
28	3174	283		233			170	386	4705	8565
29	1160	411	18	55			255	1899	3374	5273
30	755	118	106	47			181	1207	1748	2955

TABLE LVI

AMOUNT OF MONEY RECEIVED FROM THE VARIOUS SOURCES FOR TUITION FUND IN TOWNSHIPS WITH CONSOLIDATED SCHOOLS

	Indirect								Direct	
Number of township	Common school fund	Congressional interest	Liquor license	Dog fund	Special state aid	Transfers	Miscellaneous	Total	Local tax	Grand Total
1	$ 1236	$ 56		$ 85	$290		$ 123	$ 1790	$ 1207	$ 2997
2	642	38		31		$ 38	190	939	1641	2580
3	1607	40		85		178	144	2054	2313	4367
4	1196	31		59		24	73	1383	1443	2826
5	1086	156		50		1163	74	2529	2719	5248
6	1879	146		42		32	129	2228	5887	8115
7	1673	53	$ 551	75			58	2410	4356	6766
8	1498	71				1094	206	2869	3639	6508
9	844	64		55		27	167	1157	1927	3084
10										
11	617	256	219	16		228	136	1472	2585	4057
12	228	440	168	13		183	107	1139	2165	3304
13	821	73	116	51		94	137	1292	1901	3193
14	568	46	80	35		321	68	1118	1316	2434
15	487	51	68	30		56	48	740	1127	1867
16	637	159	133	11		51	99	1090	1734	2824
17	977	107		62		48	143	1337	2144	3481

After determining the average of each group with the least wealth per capita and the average of each group with the greatest wealth per capita, the ratios of the former to the latter were found and are given in Table LIV(a). While the wealth per capita of the second group in townships with district schools is 3.02 times the wealth per capita in the first group, the ratio of the state levy in the former is only 1.33 times that of the latter and the average local levy in the former group is .89 per cent of the average of the townships with the least wealth per capita. The average of the per cent of the total levy for school purposes in the group of townships with the greatest wealth per capita is 99 per cent of that for the group of townships with the least wealth per capita, which goes to show that in townships with district schools there is little correlation between the amount of the tax levy and the ability of the corporations to pay,

TABLE LVII

AMOUNT OF MONEY RECEIVED FROM THE VARIOUS SOURCES FOR TUITION FUND IN TOWNS

Number of town	Indirect								Direct	Grand Total
	Common school fund	Congressional interest	Liquor license	Dog fund	Special state aid	Transfers	Miscellaneous	Total	Local tax	
1	$ 1544	$ 47		$ 80	$369	$1007	$ 339	$ 3017	$ 2209	$ 5226
2	521	11	$ 108	36		219	16	1280	484	1764
3	833	78	10	31		1115	10	2077	1761	3838
4	720	14	108	23		1140	43	2048	2575	4623
5	1499	17		51		2376	146	4089	2042	6131
6	330	23	66	18		529	40	1006	794	1800
7	1412	40		80		676	51	2259	2554	4813
8	1167	40		35		982	61	2285	1358	3643
9	1295	10		33		3269	642	5249	2442	7691
10	1098	35	231	83		72	13	1532	167	1699
11	1248	33		75		2573	95	4024	1887	5911
12	716	99	101	45		360	73	1394	1659	3053
13	1254	56		86		1116	24	2536	2029	4565
14	1015	48				1070		2133	2801	4934
15	1291	33	1365	39		2029	46	4803	2136	6939
16	1988	93		40		819	63	3003	3211	6214
17	985	47		44		1824	59	2959	1886	4845
18	1276	24		40		389	52	1781	2024	3805
19	1883	90		23		28	98	2122	5688	7810
20	1825	84		41		1729	61	3740	3140	6880
21	416	19		28		752	18	1233	985	2218
22	1148	14		50		1163	74	2449	1872	4321
23	1002	19		27		1291	110	2449	2348	4797
24	665	40		32	755	511	162	2165	1192	3351
25	778	69		61		2031	65	3004	1647	4651

and that the support of schools is determined by other factors than the wealth per capita school population in these communities. What is said of townships with district schools also holds true, though in a somewhat more striking way, in townships with consolidated schools. Instead of the relatively smaller amount in the wealthier corporations being devoted to schools, it will be observed that there is a very slight increase in the per cent devoted to them in these corporations. The same condition prevails in both town and city schools. These tables show that the assumption, that the wealthier the community the lower the tax rate, is not well founded. While

TABLE LVIII

AMOUNT OF MONEY RECEIVED FROM THE VARIOUS SOURCES FOR TUITION FUND IN CITIES

Number of city	Indirect								Direct	Grand Total
	Common school fund	Congressional interest	Liquor license	Dog fund	Special state aid	Transfers	Miscellaneous	Total	Local tax	
1	$ 3575	$ 66		$108		$4618	$ 259	$ 8626	$ 8690	$17316
2	2976	238		67		1830	346	5457	6340	11797
3										
4	11775	31		354		4428	2654	19242	18007	37249
5	7372	156		630		1548	365	10071	10820	20891
6	6234	94	$ 72	183		901	281	7765	7919	15684
7	8975	404		621		3777	1913	15690	17483	33173
8	2447	63	2588	74		1436	344	6952	3643	10595
9	8384	100		367		1350	470	10671	13181	23852
10	5963	352		288		3598	160	10361	16833	27194
11	2895	68	602	240		1522	110	5437	3968	9405
12	17290	328	2574	506		999	557	22255	3472	25727
13	15875	354		831		7649	326	25035	22045	47080
14	16081	261	3013	287		1572	571	21785	16095	37880
15	4407	169	867	241		1518	314	7516	6168	13684
16	5345	250		109		5350		11054	11187	22241
17	5080	264		267		3438	4567	13616	8950	22566
18	3097	140		208		3087	148	6680	3356	10036
19	5305	252		64		2306	726	8653	9815	18468
20	4415	334		291		2920	482	8442	9663	18105
21	4283	30		99		3580	529	8521	10708	19229
22	4326	385		280		2031	65	7087	7270	14357
23	9558	325		295		3874	156	14208	13930	28138
24										
25	23495	120	5912	442		1302	2706	33977	30854	64831

there may be a very slight decrease in the amount of levy in the wealthier corporations, it is much safer to assume that the total tax levies in the communities is determined without any reference to the wealth of the community and that the larger amount of money raised in the wealthier communities is about equally distributed among the various expenditures of that corporation, though the schools receive a little more liberal support, relatively speaking, in the corporations with the greater wealth.

TABLE LIX

PERCENTILE DISTRIBUTION OF TUITION RECEIPTS FOR TOWNSHIP DISTRICT SCHOOLS

Number of township	Indirect								Direct
	Common school fund	Congressional interest	Liquor license	Dog fund	Special state aid	Transfers	Miscellaneous	Total	Local tax
1	39.6	1.8		2.5		.7	1.8	46.5	53.5
2	43.1	.7		1.6			1.0	46.4	53.6
3	38.0	2.0		1.3		4.7		46.0	54.0
4	30.0	.6	4.5	.9		.8	1.0	37.7	62.3
5	47.0	4.4	7.0	1.4			1.5	61.4	38.6
6	39.2	1.3		1.4		.4	17.3	59.6	40.4
7	32.8	3.3	6.5	1.7			3.3	47.6	52.4
8	39.9	2.3		1.9		4.2	2.3	50.6	49.4
9	43.5	1.1		1.2		.4	3.0	49.2	50.8
10	36.8	1.1		1.8			2.5	42.3	57 7
11	49.6	.9	10.3	4.0		11.8	2.2	78.8	21.2
12	31.4	2.4	6.9	2.5		7.8	3.6	54.5	45.5
13	23.8	2.8		1.1		4.8	3.5	36.0	64.0
14	27.4	5.5		2.7			1.6	37.3	62.7
15	27.1	2.7		.6			3.6	34.0	66.0
16	31.7	1.2				1.2	3.3	37.4	62.6
17	28.8	2.2		1.8		12.7	6.8	52.3	47.6
18	51.9	2.3		3.5			1.1	58.8	41.2
19	25.7	.7	27.4	.8		5.8	1.9	62.3	37.7
20	33.4	.6		1.1			7.9	43.0	57.0
21	33.1	1.6				.66	5.0	40.4	59.6
22	32.7	1.5		.7		.6	.4	36.2	63.8
23	23.5	2.3	4.6	1.5			2.8	34.7	65.3
24	31.4	2.2		1.8				35.4	64.6
25	18.5	1.4		1.3		.9	1.5	23.6	76.4
26	32.8	1.9		.9			2.0	37.6	62.4
27	9.3	1.2	7.6	.6		2.5	3.5	44.7	55.3
28	37.2	3.3		2.7			2.0	45.2	54.8
29	22.0	7.8	.3	1.0			4.9	36.0	64.0
30	25.6	3.9	3.6	1.1			6.1	40.8	59.2

TABLE LX

PERCENTILE DISTRIBUTION OF TUITION RECEIPTS FOR TOWNSHIP CONSOLIDATED SCHOOLS

Number of township	Indirect								Direct
	Common school fund	Congressional interest	Liquor license	Dog fund	Special state aid	Transfers	Miscellaneous	Total	Local tax
1	41.2	1.9		2.8	9.7		4.1	59.7	40.3
2	25.0	1.4		1.1		1.4	7.3	36.2	63.8
3	36.8	.9		1.9		4.1	3.3	47.0	53.0
4	42.2	1.1		2.1		.8	2.6	48.8	51.2
5	20.6	2.9		1.0		22.2	1.4	48.0	52.0
6	23.2	1.8		.5		.4	1.6	27.5	72.5
7	24.6	.8	8.2	1.1			.9	35.6	64.4
6	23.0	1.1				16.9	3.2	44.2	55.8
9	27.4	2.0		1.1		.9	5.4	37.4	62.6
10									
11	15.3	6.4	5.4	.4		5.7	3.4	36.6	63.4
12	6.9	13.4	5.1	.4		5.5	3.2	34.5	65.5
13	25.8	2.3	3.6	1.6		2.9	4.3	40.5	59.5
14	23.3	1.9	3.3	1.4		13.2	2.7	45.8	54.2
15	26.1	2.7	3.7	1.6		3.0	2.6	39.7	60.3
16	22.5	5.6	4.6	.4		1.8	3.5	38.4	61.6
17	38.1	3.1		1.8		1.3	4.2	38.5	61.5

Tuition Receipts

Thus far we have been considering the support given to schools as compared with revenue received for other purposes. If a local community provided all the funds for the schools, no further analysis of tuition receipts would be necessary, but since much of the money received for the payment of teachers' salaries is derived from other sources, and since this money is distributed on a very inequitable basis, an investigation may lead to a better understanding of the problems of the different types of schools under consideration. It has already been shown that there is a wide variation in the wealth per capita school population in each type and especially among the schools of the different types, as well as a variation in the ratio of the average daily attendance to the total number of children of legal school age, so that the distribution of any fund on a census basis is inequitable, fails to stimulate local effort and to give relief where most needed.

TABLE LXI

PERCENTILE DISTRIBUTION OF TUITION RECEIPTS FOR TOWN SCHOOLS

Indirect									Direct
Number of town	Common school fund	Congressional interest	Liquor license	Dog fund	Special state aid	Transfers	Miscellaneous	Total	Local tax
1	29.7	.9		1.5	20.9	19.2	6.5	57.8	42.2
2	29.6	.6	6.2	2.0		12.4	.9	72.6	27.4
3	21.7	2.1	.3	.8		28.8	.3	54.0	46.0
4	15.6	.3	2.4	.5		24.6	.9	44.3	55.7
5	24.5	.3		.8		38.3	2.4	66.8	33.2
6	18.3	1.3	3.7	1.0		29.4	2.2	55.9	44.1
7	29.4	.8		1.7		14.1	1.0	47.0	53.0
8	32.0	1.1		1.0		26.9	1.6	62.6	37.4
9	16.8	.1		.4		42.5	8.4	68.2	31.8
10	64.5	2.1	13.6	4.9		4.3	.8	90.2	9.8
11	21.1		.5	1.3		43.5	1.6	68.0	32.0
12	23.5	3.2	3.3	1.5		11.9	2.4	45.8	54.2
13	27.3	1.2		1.9		24.6	.5	55.5	44.5
14	20.5	1.0		1.0		21.7		43.2	56.8
15	18.6	.5	19.8	.6		28.1	.7	69.3	30.7
16	32.1	1.5		.6		13.2	1.0	48.4	51.6
17	20.2	.9		.9		37.8	1.2	61.0	37.0
18	33.5	.7		1.0		10.3	1.4	46.9	53.1
19	24.1	1.1		.3		.4	1.3	27.2	72.8
20	26.5	1.2		.6		25.2	.9	54.4	45.6
21	18.8	.9		1.3		33.8	.8	55.6	44.4
22	9.6	.3		1.2		27.2	1.7	56.7	43.3
23	21.0	.4		.6		27.0	2.3	51.0	49.0
24	19.8	1.2		.9	22.5	15.2	4.7	64.3	35.7
25	16.7	1.5		1.3		43.7	1.4	64.6	35.4

Dr. Cubberly in his book, *School Funds and Their Apportionment,* makes, in his summary of conclusions, the following statement: "The use of the school census basis for the apportionment of funds as required by so many state constitutions and as used in whole or in part by thirty-eight different states, though an improvement over the 'taxes-where-paid' basis is nevertheless one of the worst and unjust bases of apportionment we have in use and its complete abandonment in the future for some better single basis or a combination basis plan is greatly to be desired." After presenting the data relative to this point, we shall attempt to show that a distribution of forty per cent of the state revenue on the teacher basis

TABLE LXII

PERCENTILE DISTRIBUTION OF TUITION RECEIPTS FOR CITY SCHOOLS

	Indirect								Direct
Number of city	Common school fund	Congressional interest	Liquor license	Dog fund	Special state aid	Transfers	Miscellaneous	Total	Local tax
1	20.7	.4		.6		26.6	1.5	49.8	50.2
2	25.2	2.0		.6		15.5	2.9	46.2	53.8
3									
4	31.4	.1		.9		11.9	7.3	51.6	48.4
5	35.2	.8		3.0		7.4	1.7	48.1	51.9
6	39.3	.6	.5	1.2		5.8	1.8	49.2	50.8
7	27.0	1.2		1.9		11.4	5.8	47.3	52.7
8	23.1	.6	24.4	.7		13.7	3.3	65.8	34.2
9	35.2	.4		1.5		5.8	2.0	44.9	55.1
10	21.9	1.4		1.2		13.3	.7	33.5	61.5
11	30.7	.7	6.4	2.5		16.3	1.2	57.8	42.2
12	67.1	1.3	10.1	2.0		3.9	2.2	86.5	13.5
13	33.7	.8		1.7		16.2	.6	53.0	47.0
14	42.7	.7	7.7	.8		4.1	1.4	57.4	42.6
15	32.3	1.2	6.4	1.7		11.1	2.3	55.0	45.0
16	23.8	1.1		.5		24.0		49.8	50.2
17	23.8	1.2		1.2		15.1	20.1	60.4	39.6
18	30.8	1.4		2.1		30.7	1.6	66.6	33.4
19	28.7	1.4		.3		12.4	3.9	46.7	53.3
20	24.4	1.8		1.6		16.2	2.7	46.7	53.3
21	22.3	.2		.5		18.7	2.7	44.4	55.6
22	30.1	2.7		1.9		14.2	.4	49.2	50.8
23	34.0	1.2		1.1		13.6	.7	50.5	49.5
24									
25	36.3	.2	9.1	.7		2.0	4.1	52.4	47.6

and sixty per cent on average daily attendance basis would result beneficially to the schools in greatest need.

For convenience we have classified the sources of revenue for tuition purposes under the two headings: Indirect, and Direct. This division is more for convenience and is somewhat arbitrary, as will be observed when we present the sources of each fund classified under the indirect receipts. The common school fund which is distributed by the state is derived from two sources: interest on a permanent endowment, and the money received from the state tax levy of $0.136 on each $100.00 of property and $0.50 levy on each poll. The permanent endowment is made up of the bequests of the

national government to the state for educational purposes and certain funds reverting to this endowment in accord with the provisions of the state constitution, and amounted to $8,846,825.10 in 1911. The interest received annually from this permanent fund together with the money received from the state tax levy was distributed semi-annually among the counties of the state on the census basis. The legislature of 1907 amended the law then in force by setting aside 5.2 per cent of this fund so that all school corporations levying a tuition tax of $0.25 on each $100.00 should receive aid sufficient to maintain a six months' term of school, and all corporations levying a tuition tax of $0.40 on each $100.00 should receive aid sufficient to enable them to maintain a seven months' term of school. The fund for distribution in 1911 amounted to $132,245.57. The total number of corporations applying for aid was one hundred eighty-four, representing thirty-five counties. The total demand made by these corporations amounted to $169,316.51. The additional amount required to meet the provision of the law was met at a subsequent date by a special appropriation. The amount of money received from this special fund by the corporations included in this study is given under "Special State Aid."

Under Congressional Interest is given the amount of money received in interest by each corporation from what is known as the congressional school fund. The United States government in the convention of 1787 obligated itself to the encouragement of schools and the means of education. The Indiana Territorial Convention in 1816 ratified this policy and reserved the sixteenth section of each congressional township for the use of schools. A little later a second township was set aside for the same purpose. Some townships disposed of this section when land was very cheap so that little was received, while others retained this property and received a much larger amount. The aggregate amount derived from the sales of these lands was $2,476,297.00. The Constitution of 1850 provided for the consolidation of this congressional fund with other funds to constitute what is known as a "Common School Fund." Complaints were made against this law, since some communities which had received much greater returns would be deprived of a part of that support if distributed on the census basis, so that the matter was brought in the form of a test case before the supreme court. The decision of the court was such as to require the distribution to be made to each congressional township pro rata with the amount of

money received from the sale of the school land of that township. In order to secure an equal distribution of funds, a law was passed requiring the county auditors, after having distributed the congressional funds to the various school corporations composing a congressional township, to so distribute the common school fund as to bring about an equal distribution in all corporations. This practically places the distribution upon a per capita basis and substantially carries out the purpose of the law of 1852. This method of accounting, however, is somewhat complicated and the state department has experienced some difficulties with certain county auditors in enforcing all the provisions concerning the distribution of these two funds. These facts will account for the slight variation in the amounts received per capita school population in the different school corporations.

The amounts given under "Liquor License" is the money each corporation received for the licenses to liquor dealers within that county. Since local option has become effective in a great number of counties, many of the corporations received no money from this source. The law requires the assessor in each civil corporation to collect at the time of making the assessment, a special dog tax from all owners of dogs. The money received constitutes what is known as a "Dog Fund," which is used to pay for all animals killed or maimed by dogs. When this fund in any township in the state amounts to more than $100.00 on the first Monday in March of each year, the surplus must be reported and transferred to the county treasurer and constitutes what is known as the "County Dog Fund," which in turn is distributed among the townships of the county in which the orders drawn against the dog fund exceed the money on hand on the second Monday in March of each year. Any surplus left from the county dog fund after provisions have been made for the payment of all live stock and fowls killed or maimed in the townships of the county, must be distributed among the schools of the county in the same manner as the common school revenue of the state is distributed.

The larger part of the money tabulated under "Miscellaneous Sources" is received from the interest on the money in possession of the school officials in each corporation and from tuition received from nonresident pupils attending the schools of that corporation. The amount of money given under the local tax is the money received from each corporation on the basis of the tax levy made by

TABLE LXIII

DISTRIBUTION OF TUITION RECEIPTS ON BASIS OF AMOUNT RECEIVED PER PUPIL IN AVERAGE DAILY ATTENDANCE IN TOWNSHIP DISTRICT SCHOOLS

Number of township	Indirect							Direct	
	Common school fund	Congressional interest	Liquor license	Dog fund	Special state aid	Transfers	Miscellaneous	Total	Local tax	Grand Total
1	$ 6.97	$0.31		$0.43		$0.11	$0.31	$ 8.14	$ 9.37	$17.51
2	5.96	.09		.23			.15	6.45	7.42	13.87
3	7.04	.39		.25		.90		8.59	10.06	18.65
4	8.77	.16	$ 1.31	.28		.23	.29	11.04	18.16	29.20
5	8.15	.76	1.22	.24			.26	10.64	6.70	17.34
6	7.45	.25		.26		.07	3.27	11.31	7.67	18.98
7	8.24	.82	1.62	.45			.83	11.95	12.30	24.25
8	9.95	.56		.47		1.05	.58	12.61	12.32	24.93
9	7.32	.19		.23		.08	.50	8.32	8.49	16.81
10	6.74	.21		.33			.46	7.74	10.55	18.29
11	12.83	.24	2.65	1.03		3.06	.56	20.38	5.52	25.90
12	9.13	.70	2.00	.72		2.26	1.04	15.85	13.26	29.11
13	6.23	.74		.29		1.24	.92	9.42	16.71	26.13
14	7.87	1.58		.80			.45	10.70	18.09	28.79
15	8.29	.86		.18			1.10	10.43	20.28	30.71
16	8.75	.33		.34			.91	10.34	17.25	27.59
17	5.29	.42		.33		2.36	1.27	9.68	8.78	18.46
18	6.90	.31		.46			.15	7.82	5.46	13.28
19	10.02	.26	10.60	.29		2.25	.76	24.18	14.57	38.75
20	15.17	.29		.50			3.61	19.57	25.95	45.52
21	5.62	.27				.10	.87	6.87	10.16	17.03
22	9.33	.43		.19		.17	.13	10.25	18.23	28.48
23	6.96	.67	1.35	.50			.82	10.30	19.46	29.76
24	7.80	.55		.48				8.83	16.01	24.84
25	5.08	.38		.37		.24	.42	6.49	21.10	27.59
26	7.59	.45		.20			.46	8.70	14.49	23.19
27	7.94	.33	2.09	.16		.69	.99	12.20	15.09	27.29
28	9.28	.83		.68			.49	11.58	13.46	25.04
29	5.85	2.08	.09	.28			1.28	9.58	17.04	26.62
30	6.99	1.09	.98	.43			1.68	11.18	16.18	27.36

TABLE LXIV

DISTRIBUTION OF TUITION RECEIPTS ON BASIS OF AMOUNT RECEIVED PER PUPIL IN AVERAGE DAILY ATTENDANCE IN TOWNSHIP CONSOLIDATED SCHOOLS

Number of township	Indirect								Direct	Grand Total
	Common school fund	Congressional interest	Liquor license	Dog fund	Special state aid	Transfers	Miscellaneous	Total	Local tax	
1	6.86	.31		.47	1.62		.69	9.95	6.70	16.65
2	6.29	.37		.30		.37	1.87	9.20	16.09	25.29
3	5.36	.13		.28		.59	.48	6.85	7.71	14.56
4	5.95	.14		.28		.11	.33	6.82	7.14	13.96
5	5.92	.86		.27		6.37	.41	13.83	14.85	28.68
6	5.71	.45		.13		.10	.39	6.80	17.98	24.78
7	5.72	.18	1.89	.26			.20	8.25	14.92	23.17
8	4.66	.22				3.41	.65	8.94	11.33	20.27
9	5.51	.42		.34		.18	1.10	7.56	12.59	20.15
10										
11	3.79	1.58	1.36	.10		1.41	.84	9.09	15.95	25.04
12	1.93	3.72	1.42	.11		1.55	.91	9.65	18.35	28.00
13	5.66	.50	.80	.35		.65	.95	8.91	13.11	22.02
14	4.24	.34	.60	.26		2.40	.51	8.34	9.82	18.16
15	6.59	.69	.92	.40		.75	.65	10.00	15.23	25.23
16	5.39	1.34	1.13	.09		.43	.84	9.24	14.69	23.93
17	6.34	.70		.40		.31	.93	8.68	13.92	22.60

the local officials. The total amounts received from each source are given in Tables LV, LVI, LVII, and LVIII. The ratio of the amount under each item to the total tuition receipts are given in Tables LIX, LX, LXI, and LXII. While the amounts received from each source per pupil in average daily attendance in each corporation are given in Tables LXIII, LXIV, LXV, and LXVI.

Little is to be derived from the tables giving the total amounts, since so many variable elements have to be considered, but when we turn to the percentile distribution, we observe that there is a wide variation in the relative amount received from the indirect sources, among the corporations in each type as well as a variation among schools of the different types.

This is illustrated by township number eleven, which received 78.8 per cent of the money paid teachers from the indirect sources and only 21.2 per cent from the local levy, while township number

TABLE LXV

DISTRIBUTION OF TUITION RECEIPTS ON BASIS OF AMOUNT RECEIVED PER PUPIL IN AVERAGE DAILY ATTENDANCE IN TOWN SCHOOLS

Number of town	Indirect								Direct	Grand Total
	Common school fund	Congressional interest	Liquor license	Dog fund	Special state aid	Transfers	Miscellaneous	Total	Local tax	
1	$ 5.69	$ .17		$ .30		$3.70	$1.25	$11.13	$ 8.15	$19.28
2	6.20	.13	$ 1.29	.42	$4.39	2.60	.19	15.24	5.76	21.00
3	5.07	.48	.06	.19		6.80	.06	12.67	10.73	23.40
4	4.23	.08	.64	.14		6.70	.25	12.05	15.14	27.19
5	4.72	.05		.16		7.45	.46	12.82	6.40	19.22
6	3.58	.25	.72	.20		5.75	.43	10.93	8.63	19.56
7	4.90	.14		.28		2.35	.18	7.84	8.87	16.71
8	5.77	.20		.17		4.86	.30	11.31	6.72	18.03
9	3.63	.03		.09		9.18	1.81	14.74	6.86	21.60
10	7.73	.25	1.62	.59		.50	.09	11.78	1.17	11.95
11	4.14	.11		.25		8.56	.31	13.37	6.26	19.63
12	3.72	.51	.52	.24		1.88	.38	7.24	8.64	15.90
13	5.67	.25		.39		5.04	.11	11.47	9.18	20.65
14	5.26	.25				5.55		10.96	14.61	25.57
15	4.19	.11	4.44	.13		6.60	.15	15.63	6.90	22.53
16	4.12	.19		.08		1.70	.13	6.23	6.66	12.89
17	2.94	.14		.13		5.40	.17	8.78	5.59	14.37
18	3.31	.06		.10		1.01	.14	4.62	5.26	9.88
19	7.94	.38		.10		.12	.41	8.95	24.00	32.95
20	4.97	.23		.11		4.71	.17	10.19	8.55	18.74
21	3.81	.18		.26		6.89	.16	11.30	9.04	20.34
22	4.63	.06		.20		4.69	.30	9.88	7.54	17.42
23	3.63	.07		.10		4.67	.40	8.87	8.51	17.38
24	3.55	.21		.17	4.04	2.74	.87	11.58	6.37	17.95
25	3.28	.29		.26		8.58	.26	12.67	6.95	19.62

twenty-five has the reverse conditions, receiving 23.6 per cent from the indirect and 76.4 per cent from direct sources. Much more highly centralized tendencies are observed in townships with consolidated than in townships with district schools. The largest per cent of money received by any township with consolidated schools was received by township number one, which received 59.7 per cent from indirect sources and 40.3 per cent from local taxes, while township number six received only 27.5 per cent from indirect sources and 72.5 per cent from direct tax. It will also be observed

TABLE LXVI

DISTRIBUTION OF TUITION RECEIPTS ON BASIS OF AMOUNT RECEIVED PER PUPIL IN AVERAGE DAILY ATTENDANCE IN CITY SCHOOLS

	Indirect								Direct	
Number of city	Common school fund	Congressional interest	Liquor license	Dog fund	Special state aid	Transfers	Miscellaneous	Total	Local tax	Grand Total
1	$ 5.10	$ .09		$ .15		$6.56	$ .37	$12.27	$12.36	$24.63
2	5.97	.48		.13		3.68	.70	10.96	12.73	23.69
3										
4	6.72	.02		.20		2.54	1.52	11.01	10.36	21.37
5	7.10	.15		.61		1.50	.35	9.61	10.50	20.11
6	6.72	.10	$ .08	.20		.97	.30	8.37	8.53	16.90
7	6.62	.30		.46		2.78	1.48	11.64	12.97	24.61
8	7.13	.18	7.58	.22		4.19	1.07	20.37	10.61	30.98
9	6.44	.07		.29		1.04	.37	8.22	10.19	18.41
10	6.76	.40		.33		4.09	.18	11.77	19.13	30.90
11	7.80	.18	1.64	.65		4.15	.30	14.73	9.67	24.40
12	12.28	.23	1.82	.37		.70	.40	15.80	2.47	18.27
13	7.24	.16		.38		3.50	.15	11.42	10.06	21.48
14	13.62	.22	2.56	.24		1.35	.48	18.48	12.80	31.28
15	7.79	.30	1.52	.42		2.67	.55	13.25	10.84	24.09
16	6.00	.27		.11		6.03		12.43	12.47	24.90
17	5.79	.30		.31		3.90	5.40	15.51	10.20	25.71
18	6.24	.28		.42		6.22	.30	13.47	6.76	20.23
19	5.32	.25		.06		2.31	.73	8.68	9.82	18.50
20	5.67	.43		.37		3.73	.62	10.82	12.39	23.21
21	4.68	.03		.11		3.92	.58	9.32	11.71	21.03
22	4.82	.43		.32		2.26	.07	7.93	8.10	16.03
23	7.12	.24		.23		2.49	.12	20.60	10.38	20.98
24										
25	9.50	.04	2.40	.18		.53	1.10	14.15	12.09	26.24

that townships with consolidated schools received a greater amount from transfers than did schools in townships with district schools. There is also a very wide variation in the amount received from this source by consolidated schools, varying from nothing to approximately one-fourth of the total tuition receipts. The widest variation with reference to amount received from transfers will be observed in cases of town schools which vary from less than one per cent in town number nineteen to 43.7 per cent in town number twenty-five. The greatest variation in receipts in city schools is found in the

TABLE LXVII

CENTRAL TENDENCIES AND VARIABILITIES IN PER CENTS IN TUITION RECEIPTS FOR TOWNSHIP, CONSOLIDATED, TOWN AND CITY SCHOOLS

	Common School Fund		Congressional Interest		Liquor License			Dog Fund		Special state aid		Transfers		Miscellaneous			Total Indirect Receipts		Local Tax	
	Average	Quartile	Average	Quartile	Average for all corporations	Average for corporations receiving funds	Quartile	Average	Quartile	Average for all corporations	Average for corporations receiving aid	Average for all corporations	Average for corporations receiving funds	Quartile	Average	Quartile	Average	Quartile	Average	Quartile
Township	32.8	6.1	2.1	.75	2.4	7.3	2.7	1.5	.4			1.7	3.5	2.03	3.6	.9	44.1	6.9	55.9	7.0
Consolidated	25.0	7.1	2.7	1.0	2.1	5.1	1.3	1.1	.6	.5	9.7	4.2	5.8	4.3	4.4	.7	40.0	6.0	60.0	5.3
Town	23.1	5.1	.9	.3	1.7	6.3	6.5	.9	.3	1.0	21.7	25.3	25.3	9.6	2.1	.7	56.0	8.5	44.0	9.2
City	32.6	5.1	.9	.8	2.9	9.2	9.2	1.3	.6			11.7	11.7	4.6	3.3	1.1	52.5	5.2	47.5	5.4

amounts received from liquor licenses, though more than half the schools received no money from this source. City number eight received one-fourth of the money for support of teachers from liquor licenses.

The central tendencies and variabilities are given in Table LXVII. It is usually assumed that cities receive a much larger per cent of their total tuition revenues from common school funds than do any other type of schools, but statistics show that the township with district schools, which receives 32.8 per cent, with a variability of 6.1 per cent, from the common school fund, ranks first, while cities with an average of 32.6 per cent with a variability of 5.1 per cent rank second. Consolidated schools with a central tendency of 25 per cent, with a variability of 7.1 per cent, rank third, while towns with a central tendency of 23.1 and a variability of 5.1 per cent, receive the lowest amount, relatively speaking, from the state. Consolidated schools rank first in the relative amount received from the congressional fund, while townships with district schools rank second. If school officials equalize the amount of money received from these two sources, the ratio of the amount received fails to indicate it. It is ordinarily assumed that towns would rank second in the relative amount of money received from liquor licenses but our statistics show that this is not the case. This is due to the fact that local option has eliminated practically all saloons from the smaller centers of population and that a relatively larger number of the total school population of towns is enrolled in the schools.

The report of the city superintendents for 1911-1912 shows that the larger per cent of the deficiencies was paid to townships in counties in which there are no consolidated schools. Of all the corporations included in this study, townships with consolidated schools and towns were the only ones receiving special state aid. A relatively larger number of townships with districts schools would show that the greater amount of money is paid to schools of this type. Few townships with consolidated schools find it necessary to call for state aid since the wealth per capita in these townships is so large that when the minimum levy required for the state aid, is made there is sufficient money to pay the salaries of all teachers in that corporation. It would be the exceptional city that would find it possible to avail itself of this special aid. The miscellaneous receipts, under the provision of the law, show that school officials of consolidated schools receive greater returns for the money they have in

their possession when not in use for school purposes. Notwithstanding the fact that the towns receive the lowest amount, relatively speaking, from the common school fund, they rank first in the total amount received from indirect sources. This is due to the fact that one-fourth of the total income for the payment of teachers is received from transfers, as compared with 11.7 per cent in city schools, 4.2 per cent in townships with district schools. City schools which receive 52.5 per cent from indirect sources rank second, while townships with consolidated schools, receiving 40 per cent, rank fourth. Naturally, the relative amounts received from local taxes, vary inversely as the amounts received from indirect sources. It will also be observed that the variability in the amount received from both indirect and local taxes is greatest in the town schools, while townships with district schools rank second.

While there is a great variation in the amount received from the common school fund by the different school corporations as compared with the amount received from other sources, it is even more pronounced when we compare the amount received per pupil in average daily attendance. By referring to Tables LXIII, LXIV, LXV, and LXVI and the summary of which is given in Table LXVIII, the effects of the distribution of school funds on the inequitable census basis will be seen. Notwithstanding the fact that the state distributed approximately $4.00 per capita school population, township number twenty received as much as $15.17 per pupil in average daily attendance, while township twenty-five received only $5.08. A similar variation may be observed in townships with consolidated schools; for example, township number one received $6.86 per pupil in average daily attendance while township number twelve received only $1.93 per pupil in average daily attendance. In town schools, number nineteen received $7.94 per pupil while number seventeen received only $2.94 per pupil in average daily attendance. The same inequality is found among city schools. City number fourteen received $13.62 per pupil in average daily attendance while number twenty-one received only $4.68. The total amounts received from indirect sources show the same variations in a more pronounced form. The reverse conditions will be found in the amounts received from local taxes.

By referring to Table LXVIII it will be observed that townships with district schools which receive on an average $7.90, with a variability of $0.80, rank first in the amount received from the state

TABLE LXVIII

CENTRAL TENDENCIES AND VARIATIONS IN DOLLARS AND CENTS IN THE TUITION RECEIPTS PER PUPIL IN DAILY ATTENDANCE IN TOWNSHIP, CONSOLIDATED, TOWN AND CITY SCHOOLS

	Common School Fund		Congressional Interest		Liquor License		Dog Tax		Transfers		Miscellaneous		Total Indirect Revenue		Local Taxes		Grand Total	
	Average	Quartile	Average	Quartile	Average	Quartile	Average	Quartile	Average	Quartile	Average	Quartile	Average	Quartile	Average	Quartile	Average	Quartile
Township	7.90	.80	.51	.29	.58	.75	.36	.12	.41	.40	.87	.33	.0163	1.50	13.47	4.04	24.10	5.37
Consolidated	5.39	.84	.60	.24	.45	.56	.23	.10	.89	.72	.94	.27	8.61	1.05	12.84	3.07	21.45	3.54
Town	4.52	.95	.18	.08	.32	.30	.18	.08	4.73	2.19	.37	.14	10.48	1.80	8.25	1.31	18.73	2.29
City	7.41	.96	.19	.11	.65	.81	.28	.11	2.68	1.82	.75	.30	11.98	3.22	10.77	1.24	22.75	3.09

TABLE LXIX

EFFECT OF DISTRIBUTION OF COMMON SCHOOL FUND ON TEACHER-AVERAGE-DAILY-ATTENDANCE BASIS IN TOWNSHIPS WITH DISTRICT SCHOOLS

Number of township	Total amount received from common school fund	Amount received per pupil in daily attendance from common school fund	Ratio of receipts from common school fund to total tuition receipts	Total levy for tuition	Wealth per capita school population	Number of teachers employed	Number of pupils in average daily attendance	Distribution of 40% of fund on teacher and 60% on average daily attendance basis		
								Total receipts from common school fund	Receipts per pupil in average daily attendance	Ratio of receipts to total receipts
20	$1669	$15.17	33.4	$0.20	$4475	6	110	$ 866	$7.87	17.1
19	992	10.02	25.7	.15	4204	7	99	900	0.09	23.5
8	1762	9.95	39.9	.30	1641	11	177	1493	7.87	33.8
22	2381	9.33	32.7	.30	2350	13	255	1940	7.60	32.8
25	3174	9.28	37.2	.16	4338	16	342	2499	7.31	24.3
12	1498	9.13	31.4	.05	2338	9	164	1296	7.90	27.1
4	1817	8.77	30.0	.30	3052	17	207	2048	9.89	33.8
16	1673	8.75	31.7	.20	4230	9	191	1390	7.27	26.4
Average	1871	10.05	32.7	2.08	3328	11	193	1554	8.10	27.3
25	595	5.08	18.5	.25	5794	7	117	967	8.26	29.8
17	1097	5.29	28.8	.30	2490	9	207	1461	7.06	38.4
21	1182	5.62	33.1	.16	4674	7	210	1328	6.32	37.4
29	1160	5.85	22.0	.22	5481	7	198	1299	6.56	24.6
2	2911	5.96	43.1	.40	1835	18	488	3212	6.58	47.6
13	1147	6.23	23.8	.18	3854	8	184	1096	5.95	22.6
10	2299	6.74	36.8	.25	2527	13	341	2298	6.74	36.5
18	1035	6.90	51.9	.25	1171	6	150	1022	6.86	51.1
Average	1428	5.96	32.3	.25	3478	8.3	237	1585	6.78	36.0

TABLE LXX

EFFECT OF DISTRIBUTION OF COMMON SCHOOL FUND ON TEACHER-AVERAGE-DAILY-ATTENDANCE BASIS IN TOWNSHIPS WITH CONSOLIDATED SCHOOLS

Number of township	Total amount received from common school fund	Amount received per pupil in daily attendance from common school fund	Ratio of receipts from common school fund to total tuition receipts	Total levy for tuition	Wealth per capita school population	Number of teachers employed	Number of pupils in average daily attendance	Distribution of 40% of fund on teacher and 60% on average daily attendance basis		
								Total receipts from common school fund	Receipts per pupil in average daily attendance	Ratio of receipts to total receipts
1	$ 1236	$6.86	41.2	$0.20	$5001	5	180	$1065	$5.92	35.5
15	487	6.59	26.1	.35	3938	5	74	653	8.82	34.9
17	977	6.34	38.1	.20	3986	6	154	1037	6.69	29.8
2	642	6.29	25.0	.25	6041	5	102	762	7.47	29.5
4	1196	5.95	42.2	.15	3735	7	202	1172	5.80	41.4
5	1086	5.92	20.6	.40	1909	9	183	1369	7.48	26.1
Average	937	6.33	32.2	.26	4102	6.25	149	1009	7.03	34.1
12	228	1.93	6.9	.19	7178	5	118	827	6.98	25.0
11	617	3.79	15.3	.20	7530	8	162	1212	7.48	25.7
14	568	4.24	23.3	.30	3459	6	134	959	7.15	39.4
8	1498	4.66	23.0	.37	3820	13	321	2198	6.84	33.7
3	1607	5.36	36.8	.23	3995	10	300	1896	6.32	43.4
16	637	5.39	20.6	.20	5801	7	118	971	8.14	34.5
Average	1026	4.23	21.0	.25	5297	8.25	192	1334	7.34	33.6

TABLE LXXI

EFFECT OF DISTRIBUTION OF COMMON SCHOOL FUND ON TEACHER-AVERAGE-DAILY-ATTENDANCE BASIS IN TOWN SCHOOLS

Number of town	Total amount received from common school fund	Amount received per pupil in daily attendance from common school fund	Ratio of receipts from common school fund to total tuition receipts	Total levy for tuition	Wealth per capita school population	Number of teachers employed	Number of pupils in average daily attendance	Distribution of 40% of fund on teacher and 60% on average daily attendance basis		
								Total receipts from common school fund	Receipts per pupil in average daily attendance	Ratio of receipts to total receipts
19	1883	7.94	24.1	.50	?	10	237	$1652	6.97	21.1
10	1098	7.73	64.5	(.07)	1043	5	142	917	6.45	54.1
2	521	6.20	29.6	.40	1029	4	84	619	6.37	35.1
8	1167	5.77	32.0	.50	1060	8	202	1370	6.78	37.7
1	1544	5.69	29.7	.50	1087	11	271	1858	6.85	35.5
13	1254	5.67	27.3	.50	1396	8	221	1443	6.53	31.7
14	1015	5.26	20.5	.50	2256	11	193	1554	8.05	31.5
3	833	5.07	21.7	.50	1905	9	164	1296	7.90	33.8
Average	1164	6.17	31.2	.486	1397	8.25	189	1339	7.07	35.0
17	985	2.94	20.2	.45	1234	9	337	1967	5.83	40.6
25	778	3.28	16.7	.50	1819	9	237	1191	5.02	25.5
18	1276	3.31	33.5	.35	2293	12	385	2372	6.11	62.3
24	665	3.55	19.8	.50	1611	6	187	1171	6.26	34.8
6	330	3.58	18.3	.40	2419	4	92	650	7.06	36.2
23	1002	3.63	21.0	.50	1654	10	276	1830	6.63	38.4
9	1295	3.63	16.8	.50	1326	10	356	2114	5.93	27.6
12	716	3.72	23.5	.20	3027	7	192	1248	6.50	40.8
Average	881	3.45	21.2	.425	2198	8.33	258	1568	6.08	38.3

TABLE LXXII

EFFECT OF DISTRIBUTION OF COMMON SCHOOL FUND ON TEACHER-AVERAGE-DAILY-ATTENDANCE BASIS IN CITY SCHOOLS

Number of city	Total amount received from common school fund	Amount received per pupil in daily attendance from common school fund	Ratio of receipts from common school fund to total tuition receipts	Total levy for tuition	Wealth per capita school population	Number of teachers employed	Number of pupils in average daily attendance	Distribution of 40% of fund on teacher and 60% on average daily attendance basis		
								Total receipts from common school fund	Receipts per pupil in average daily attendance	Ratio of receipts to total receipts
14	$16081	13.62	42.7	.40	1567	40	1179	7505	$6.37	19.9
12	17291	12.28	67.1	.10	965	50	1408	9126	6.48	35.5
25	23495	9.50	36.3	.24	2288	88	2470	16030	6.49	24.8
11	2895	7.80	30.7	.30	1274	15	369	2531	6.86	26.9
15	4407	7.79	32.3	.40	1425	22	568	3815	6.72	29.0
13	15875	7.24	33.7	.33	1391	84	2191	14654	6.69	31.1
23	9558	7.12	34.0	.35	1415	24	1341	6961	5.19	24.6
5	7372	7.10	35.2	.24	3025	38	1037	6807	6.56	32.6
Average	12122	9.04	39.0	.295	1669	45	1320	8428	6.42	27.9
21	4283	4.68	22.3	.40	2456	28	914	5597	6.12	29.1
22	4326	4.82	30.1	.37	1413	24	897	5238	5.84	36.7
1	3575	5.10	20.7	.40	2264	24	703	4456	6.34	25.8
19	5305	5.32	28.7	.45	1614	29	998	5996	6.01	32.4
20	4415	5.67	24.4	.35	1425	29	780	5151	6.60	28.5
17	5080	5.79	23.8	.33	1391	30	878	5604	6.38	24.9
2	2976	5.97	25.2	.50	1415	15	498	3031	6.09	25.8
16	5345	6.00	23.8	.50	1704	28	893	5516	6.18	24.8
Average	4413	5.42	25.0	.413	1710	26	820	5074	6.20	28.5

while cities which receive an average of $7.41 per pupil in average daily attendance with a variability of $0.96 rank second and that consolidated schools receiving an average of $5.39, and a variability of $0.84 rank third, while towns receiving only $4.50 per pupil in average daily attendance receive the lowest amount from the common school fund. While the towns rank first in the relative total amount received from indirect sources, it will be observed that they rank third in the actual amount received per pupil in average daily attendance, the city schools ranking first, and townships with district schools ranking second. Only one explanation can be offered for this situation, and that is that towns find it necessary to run their schools on a much more economical basis than do the schools of other corporations. Notwithstanding the fact that townships continue in session a much shorter period than schools in the other types of corporations, the average cost per pupil in daily attendance for tuition is greater than that in any other corporation. Townships with district schools pay an average of $24.10 per pupil, as compared with $22.75 in city schools, $21.45 in consolidated schools and $18.73 in town schools. In other words, it is more economical from the standpoint of the amount of money paid teachers, to consolidate the district schools, but not so economical as to provide school facilities in the natural centers of population. One or two factors, however, have not been considered when comparing the amount of money received from the common school fund by the different types of corporations and the relative amount received from indirect and direct sources. One of the reasons for the great variation in the amount received from the common school fund, which in turn will affect the total amount received from indirect sources, is that a great number of pupils are transferred to a corporation which has on the census basis a relatively low school population. Thus, towns receiving a great number of pupils from other corporations for whom transfers are provided, receive only a small amount from the state fund on account of their very limited number of pupils of legal school age in that corporation. Another element which must be considered is the relative wealth per capita. In order to determine to what extent these factors enter into the situation and the effect of the application of a more scientific method of distribution, Tables LXIX, LXX, LXXI, and LXXII have been compiled.

Eight townships were selected in the order of the amount received per pupil in average daily attendance from the common school fund, beginning with the highest, and a second group of eight townships were selected on the same basis, except beginning with the township receiving the lowest amount per pupil in average daily attendance from the common school fund. The ratio of the amount received per pupil from the common school fund to the total tuition receipts, the tax levy for tuition purposes, wealth per capita, school population, number of teachers employed, and pupils in average daily attendance in each corporation, were taken from the preceding tables and the average for each group in each of these items determined. In like manner six townships with consolidated schools receiving the greatest amounts per pupil in average daily attendance and the six townships receiving the lowest amounts per pupil, were selected and in the same way sixteen towns and sixteen cities were selected. In order to determine the effect of the distribution of the money received from the common school fund on the basis advocated by Dr. Cubberly and which is now employed in one or two states, the total amount received from the common school fund, the total number of pupils in average daily attendance and the total number of teachers employed in these selected groups of corporations were determined. Forty per cent of the total amount received from the common school fund was divided by the total number of teachers employed, thus determining the distribution of the forty per cent of the total amount received on this basis. The remaining sixty per cent of the common school fund received in these corporations was divided by the total number of pupils in average daily attendance, which gave the amount received per pupil on the average daily attendance basis. The amount of money received per teacher multiplied by the number of teachers employed plus the amount received per pupil in average daily attendance multiplied by the number of pupils gave the total amount received on the proposed basis of distribution. In order to make a comparison with the amounts received per pupil in average daily attendance on the old basis, this total amount was divided by the number of pupils in average daily attendance which in turn gave the amount received per pupil in average daily attendance on this combination basis. In like manner, for purposes of comparison, the ratio of the total amount received on this combination basis to the total amount received for tuition purposes, assuming that each corporation

modified its local levy so that the total amount would not be altered by the change in basis of distribution, was determined and given in the last column of these tables. A summary of these results is given in Table LXXIII.

The application of the combination basis of distribution not only makes a more equitable distribution among the schools of the same type, but also equalizes the distribution among the schools of different types, as well as to give assistance to the schools in greatest need and to stimulate consolidation of rural schools. The eight townships with district schools receiving a larger amount from the

TABLE LXXIII

SUMMARY OF THE RESULTS IF THE COMMON SCHOOL FUND WERE DISTRIBUTED ON TEACHER-AVERAGE-DAILY-ATTENDANCE BASIS

		Average total amount received from common school fund		Average amount received per pupil in daily attendance from common school fund		Ratio of receipts from common school fund to total tuition receipts		Total levy for tuition purposes	Average wealth per capita
		Census	Proposed	Census	Proposed	Census	Proposed		
Township	Higher	$ 1871	$1554	$10.05	$8.10	32.7	27.3	.208	$3328
	Lower	1428	1585	5.96	6.78	32.3	36.0	.25	3478
Consolidated	Higher	937	1009	6.33	7.03	32.2	34.1	.26	4102
	Lower	1026	1334	4.23	7.34	21.0	33.6	.25	5297
Town	Higher	1164	1339	6.17	7.07	31.2	35.0	.435	1397
	Lower	881	1568	3.45	6.08	21.2	38.3	.435	2198
City	Higher	12122	8428	9.04	6.42	39.0	27.9	.279	1669
	Lower	4413	5074	5.42	6.20	25.0	28.5	.285	1710

common school fund received, on the old basis, an average of $1,871.00, while the eight townships receiving the lowest amount averaged $1,428.00; but when we apply the combination basis of distribution, we find that the first group receives on an average a smaller amount than the latter group. When we consider the amount received per pupil, it will be observed that the upper group of townships received $1.95 per pupil less on the combination basis than on the census basis, while the lower group received $0.82 more per pupil on the combination basis of distribution than on the census basis. The ratio of the total amount received from the common

TABLE LXXIV

DISTRIBUTION OF EXPENDITURES IN DOLLARS AND CENTS FOR SCHOOL PURPOSES IN TOWNSHIPS WITH DISTRICT SCHOOLS

Number of township	Total expenditures	Teachers	Business administration	Legal service	Institute fees	Transfers	Janitor service	Office and supervisors' supplies	School supplies	Janitor supplies	Laboratory and Manual training and Domestic science supplies	Special lectures and commencement expenses	Fuel	Light and power	Water	Ordinary repairs
1	3690	2389	275		107	320	84		10	13		15	175			123
2	9658	6729	615	5	555		191	9	132	59			361			564
3	3496	2359	340	1	147	114	107		28				159			24
4	8014	5216	660		295	1084	1	13	38	19			348			113
5	3025	2120	299		44	233	68	2	42	9		15	100			49
6	11774	8402	705		417	66	322		159	40			668			434
7	2887	1802	430		127	105	2	32	35			3	224			10
8	5367	3676	515	1	158	177	125	22	6	30			106			181
9	3257	2226	258		85	151	84	3	15	2		20	200		10	20
10	8385	5595	615		241	733	184		147			29	377			312
11	4421	2268	296		105	1345		14	53	25			77			149
12	5409	2952	450		144	1228		40	26	16			198			181
13	6568	3355	338		150	1084			94	28		11	249			356
14	3213	1855	316		109	395	101	6	65	5		34	80			218
15	2761	1508	625		65	40	56		109				67			100
16	6643	3271	644		280	1391	143	11	119	23			262			375
17	6101	4443	400		67		141		332				121			150
18	2902	2018	265		101		73		16	5		5	122			53
19	7311	5136	669		180	116	17	2	21				240			103
20	8755	5031	369		120		196			15		13	235			369
21	4468	2650	465		176	127	110	3	12	9		15	179		4	89
22	6131	5492	698		270	336	8	11	189	100		18	376			203
23	16339	9979	806		498	1500	420	13	125	50			475			275
24	6021	3290	665		156	765	82	13	29			26	289			129
25	4598	3167	465		140	183	98	32	61	15		11	378			46
26	14443	5312	625		256	3150	280	35	325	150		30	475			500
27	9423	5078	615		218	1195	165	30	123	20			415			324
28	12052	6293	655		296	2381	224	50	475	145		25	600			427
29	10780	4412	629	10	198	2130	144		470	20			254			199
30	5347	3066	654	1	114	234	96	7	74	4		27	194			126

TABLE LXXIV (*Continued*)

Number of township	Additional furniture	Rent	Printing and advertising	Census	Transportation	Freight, express, drayage	Telegraph and postage	Telephone	Insurance	Reference and supplementary books	Poor	Miscellaneous	Public library	New sites, buildings, equipment	Permanent improvement of old property	Amount paid in interest on indebtedness	Amount paid on principal
1			17	3	138	6	3		30								
2	6	30	7	46	196	10			143					10480	13	419	2000
3	16	10			187		2								66		
4	24		5	30	160					8			407		271		
5				20		16						8					
6				26	373	38	8		74	42				186	7	172	2980
7			2	30					70	15							
8		5			360		5							1691			
9	25			12	76					30		40			40		
10	68		15			6			60	9					147		
11	4	14	4	40		2	2		15	8					206		
12		42		40		10	2		68			12					
13				20	851	6	10		16							25	
14			11		4	9				5							
15		50		24					68	11		18			18		
16		50		30			4		40						97	138	2100
17				114	262		5		41	21							
18	84			20	133	5						2				8	
19			28		748	30	12			11					86	10	300
20			4		228				172						505		
21	103	21	13	34	418	12	1			19					115		
22		60		34	158	15			107	53					511	91	
23			50	55	1520	5	5		125			438			135		
24			50		452	33	3		24	15					173		
25															293		
26	100		15	40	3019	18	13		100						321	300	2000
27	30	100		30	1019		1		76	2					137		
28				40	411	24	6					8			350	12	500
29	177	24	5	50	1959	18	2		29	50						162	1200
30	24		21	60	538	11	3		78	15				125	119	36	1000

school fund to the total amount of tuition receipts in the two groups on the old basis are approximately the same, while on the combination basis the lower group with a higher tax levy will receive a relatively larger amount from the state; thus in every particular the application of the combination basis to the township district schools will give the greater amount where there is the greatest local effort and the greatest need. The application of this basis of distribution to townships with consolidated schools would give a greater amount of money, not only to the lower group, but to the higher as well. The lower group would receive the greater amount and would practically equalize the ratio of the amount received from the common school fund to the total tuition receipts, with that received by the upper group. The greatest change would be observed in the case of the town schools. Since the town schools with their limited wealth per capita and high tax levy for tuition purposes, receiving relatively smaller amounts from the common school fund on account of the limited number of pupils within these corporations, would receive much more money if distribution was made on the combination basis than any other type of school. The amount received per pupil in average daily attendance, however, does not equal the amount received in the townships with district schools and the townships with consolidated schools. The great variation in the amount received by the upper group as compared with the amount received by the lower group on the basis would, also, be eliminated. Naturally, it is the larger cities with their larger number of pupils and greater wealth per capita which would suffer on this new basis for the benefits received by the smaller cities and towns, yet the amount received per pupil in average daily attendance by the lower group on the combination basis would be greater than now received on the old census basis, while the amount received per pupil in average daily attendance in the upper group on the combination basis would be much less than that received on the old basis. This, however, is not inequitable when we consider the ratio of the amount received from the common school fund to the total tuition receipts and the tax levy of the lower as compared with the same items in the upper group.

CHAPTER VIII

School Finances—Expenditures

As was stated in one of the preceding chapters, the total expenditures for the support of schools are met, so far as local efforts are involved, by tax levies made for two distinct purposes; the one for the payment of salaries of teachers, and the other for the maintenance and operative expenses of the school. The former is called the tuition fund, the latter, the special school fund. In the preceding chapter an analysis was made of the funds for the payment of teachers, while in this chapter a study will be made of the distribution of the money received for maintenance and operation.

It was stated in the introduction that the data from which the following tables were compiled were taken from the itemized reports of the school officials to the county auditors and that the classification of expenditures as herein given were made by the writer with one assistant; so that uniformity prevails throughout. Some difficulty was experienced in classifying some of the expenditures for supplies, since many school officials used that term to include most anything that might be needed for office or school purposes. In most cases, however, it was possible to determine for what the expenditure was made by reference to the original vouchers filed with the reports.

The writer was influenced to a large extent by the investigation of *City School Expenditures* by Dr. Strayer in the classification of expenditures. Certain modifications were made to suit the local conditions. A few items are included in order to eliminate an unusual element in a few of the schools, rather than for the purpose of comparing one type of schools to another in this particular. For example, a few school corporations spent quite a little money for legal services which was an unusual expenditure, and to be included under business administration would give erroneous results for that school in this particular.

The practice of school officials and recent legislation has changed the distribution of funds somewhat from that originally intended by the law concerning the same. While the law originally specified that teachers' salaries must be paid from the tuition fund, it is possible under certain conditions for an unexpended balance in the special school fund to be used for this purpose when there is a

TABLE LXXV

DISTRIBUTION OF EXPENDITURES IN DOLLARS FOR SCHOOL PURPOSES IN TOWNSHIP CONSOLIDATED SCHOOLS

Number of township	Total expenditures	Supervision	Teachers			Business administration	Legal service	Institute fees	Transfers	Janitor service	Office and supervisors' supplies	School supplies	Janitors' supplies	Laboratory, Manual Training and Domestic Science supplies	Special lectures and commencement expenses	Fuel	Light and power	Water
			High school	Grades	Total													
1	8423			2226	2226	720		110	984	264	2	77	18		21	234		
2	5363		840	1932	2772	470		100	154	57	5	20	8		12	240		
3	9870		2284	3017	5301	617		174	35	181	2	128	52	25		410		
4	6954	120		2618	2618	415	30	64	230	165	7	126	23		15	354		
5	8725	54	1600	3022	4622	340	6	192	42	132	2	124	19	38	9	529		
6	16149		3136	5017	8153	691		409	25	709	13	127	72		46	793		
7	14775	222	4264	3816	8080	963	18	429	16	532	14	738	33	164		68		
8	13424	219	1756	4937	6693	574		260	302	918	67	34		117		355		
9	5903		1663	1383	3046	353		166	200	210	23	35	9	45	12	359		
10	19962		3600	7330	10930	765		472	72	869	18	119	38	349	58	909		
11	9290		1488	3119	4607	530		211		331	8	242	43	11	47	329	15	
12	6561			2360	2360	349	200	101	486	244	9	79	21		23	361		
13	5897		1593	2027	3620	579		148		198	4	57	3	47		120		
14	4383			2065	2065	489		105	100	185	2	49	34	50		155		
15	3720		821	1200	2021	395		88	112	105	11	31	5	40	19	145		
16	5477			2868	2868	365		117	59	216	20	62	11	14	50	425		
17	7615		1280	1816	3096	603		135		297		198	14	94	39	416		

TABLE LXXV (*Continued*)

Number of township	Repairs	Additional furniture	Rent	Printing and advertising	Census	Transportation of pupils	Freight, express, drayage	Telegraph and postage	Telephone	Insurance	Reference and supplementary books	Miscellaneous	Public library expenses	New sites, buildings, equipment	Permanent improvement of old property	Amount paid in interest on indebtedness	Amount paid on principal
1	46	14		21		3673					13						2600
2	85	35	22	14		1156	6	2	1	190	12	2		2029		58	1000
3	203	92	5		11	2556			19	57	2					101	2400
4	230	82		33		2370	6			66						693	1600
5	184			26		2383			16		4	3					
6	284	102	13	36	26	4492		8	14	120	3	13			450	911	2900
7	231	5		51	15	3029	33		24	7	103					1047	9500
8	284	31			10	3466	74		8		12					11	1100
9	34			2	20	1374	7			8						145	5200
10	211	158	15	3	40	4551	27	3		317	14	24			247	89	1920
11	136	65		11		2550	27	3		120		4			126		
12	91	4	10	19	20	1934	59	2	21	96	72			21,177		341	
13	17		43	2		950	30			41	35	3				257	5507
14	47	52	31		22	971	4		1		21					424	740
15	25	13	81			593				32	4				442		
16	76			11	20	1084	15				65						
17	218		32	64		1992	1	2	39	167	90	118		110		655	1400

TABLE LXXVI

Distribution of Expenditures in Dollars for School Purposes in Town Schools

Number of town	Total expenditures	Supervision	Teachers			Business administration	Legal service	Institute fees	Transfers	Janitor services	Office and supervisors' supplies	School supplies	Janitors' supplies	Laboratory, Manual Training and Domestic Science supplies	Special lectures and commencement expenses	Fuel	Light and power	Water
			High school	Grades	Total													
1	7251	643	2020	3496	5516	61				345	2	70	3	13	25	313	13	
2	2341			1891	1891	45		58		44	2	14			5	58		
3	6814	859	1670	3081	4751	35				295	2	208			4	151		
4	5100		1830	2085	3915	59				273		57	19	12	23	148	32	
5	8651	660	2600	2983	5583	131	241			676	12	98	119	213		429	48	
6	1740			1429	1429	29	6			68		2				59		
7	8674	400	2619	3644	6263	60				432	30	454	53	135	15	417		
8	4763		1800	1876	3676	40			29	236	13	12		62		188		
9	7290		2680	3286	5966	22				360	20	18	50	39	16	320	20	
10	2320			1939	1939	84						48				9		
11	7768	1120	2390	2944	5334	75				353		27	25			163		
12	4368		1420	2111	3531	66	3	9		208	2	56		31	97	100	45	
13	5733		1840	2540	4380	64	3			255		205	14		14	434		
14																		
15	8465	618	2436	4023	6459	75	9			578	6	70	21		2	405		
16	12193	563	3690	5640	9330	120				546	25	123	31	227	32	691	56	
17	6456		2500	2963	5463	36			7	320	6	55	7		7	213		
18	9696		2745	3887	6632	125				654			55	100	148	455		
19	7816	108	1799	4808	6607					282		59			17	437		
20	11591	1684	2905	5140	8045	77				562	5	99	10	109		338	51	
21	3525	486	1196	1500	2696	31				118		17	4		35	111		
22	6375	276	2785	2164	4949					251	134	62			19	236		
23	9587	1080	2458	3272	5730	90				360	15	325	25	700		300		
24	5535	250	1530	1718	3248	90		210		401		437	27		58	384	6	
25	6308		2200	2685	4885	45		205		250	15	333	15		25	250		
26	4519		1185	2126	3311	59				240	28	70	11	5	48	218		

TABLE LXXVI (*Continued*)

Number of town	Repairs	Additional furniture	Rent	Printing and advertising	Census	Transportation of pupils	Freight, express, drayage	Telegraph and postage	Telephone	Insurance	Reference and supplementary books	Miscellaneous	Public library	New sites, buildings, equipment	Permanent improvement of old property	Amount of interest paid on indebtedness	Amount paid on principal
1	174			10	11		3			15	34				173	8	875
2	180	14			7				1		22						
3	402			52	50		5								10		
4	435			10	8	6				42		61					
5	139	14		26	30	2	15		1	162	32	20		9015		854	1660
6	72	57		2	6		5	5							43	13	
7	108	115			5		31	1	11		137	7			242	318	700
8	169	84			10		1			135	108				108		
9	62	52			7		8		6	216	108				100	165	692
10	110		103		25					2							
11	410			16				9		36		200			810		
12	109	58		10	15		3		12		13				528		
13	253	49		7			5			34	16					30	1325
14																	
15	197			10	15												
16	209	28		21			35	10	24	45	77					10	
17	133	36		17	10		1	1		139	5				2355	3	200
18	150			20	15	1108	5	25		84	120						
19	71				30	205								2814	143		
20	258	76		25	15		9		29	148	33	18					
21	128																
22	282			15	7		1			118	3	22					
23	300	70		40	16		10	4		42	400	80			500		
24	312	74		11	10		12				5					344	998
25	150			15	10		12		18	80					425		
26	208	110		6	7		35		12	143		8	206				

TABLE LXXVII

DISTRIBUTION OF EXPENDITURES IN DOLLARS FOR SCHOOL PURPOSES IN CITY SCHOOLS

Number of city	Total expenditures	Supervision	Teachers			Business administration	Legal service	Institute fees	Transfers	Janitor service	Office and supervisors' supplies	School supplies	Janitors' supplies	Laboratory, Manual Training and Domestic Science supplies	Special lectures and commencement expenses	Fuel	Light and power	Water
			High school	Grades	Total													
1	21593	1500	5530	10915	16445	225				1170	15	300	75	200	25	750	200	
2	14828	1500	4891	5861	10752	150	1			790	30	258	38	220	57	623	9	
3	48323	4430	14850	23162	38012	36	31			2295	171	232	23	237	82	1255	104	
4	48868	2508	11700	26090	37790	279	203			2405	382	401	276		48	1366	202	
5	37764	2598	8839	18556	27395	300				1840	652	189	92	498	58	1370	196	
6	22580	1700	4076	13659	17735	156				1344	19	509	54	137		525	36	
7	53656	2000	13557	25654	39211	300	25		73	4170	238	736	156	373		2785	169	
8	11523		3090	5635	8725	200	75			677	46	315	8	6	34	551		
9	48513	1848	11596	22492	34088	300	25			4304	252	1011	299	981	178	1600	622	67
10	32826	1950	6297	16471	22768					1825		638	24	345		807		
11	11304	600	3065	5890	8955	120	50			450	43	57	36	2	19	288	18	
12	40602	1623	7620	27638	35258	312						64	105	22	71	954	102	
13	73489	2200	13179	40987	54166	531		Night	559	4486		3439				3047	595	
14	54829	2200	11984	27243	39227	157		200	61	4297	103	605	194	432	53	2291	1352	
15	18256	1800	4931	7152	12083	150	5			937	22	504	63	54	16	937	51	
16	25049	3093	5815	10918	16733	156				1356	18	233	55	293	46	1926	41	
17	23108	1500	6210	9641	15851	180				2094	53	359	118	191		1263	521	
18	15186	1935	3369	8207	11576	67				754	13	107	35	45		268		
19	29512	3670	5911	14606	20517	214				1476	75	300	150	200	75	1200	75	
20	28770	1600	6200	15596	21796	329	95		12	2025	82	334	24	85		818	292	
21	28945	2100	7458	13407	20865	69	9		126	1197	7	382	18	540	66	1061	97	38
22	22014	2500	4705	8920	13625	150	25			975	15	437	123	780	50	1235	85	
23	36719	2180	8470	19617	28087	400				2576	309	399	33	31	38	1042	35	
24	23072	1600	5022	11988	17010	150				1151	260	147	53	272		801		378
25	89385	2438	15660	52553	68213	509	107	3		6000	595	1124	159	414	58	4566	653	25

TABLE LXXVII (*Continued*)

Number of city	Repairs	Additional furniture	Rent	Printing and advertising	Census	Transportation of pupils	Freight, express, drayage	Telegraph and postage	Telephone	Insurance	Reference and supplementary books	Miscellaneous	Public library	New sites, buildings, equipment	Permanent improvement of old property	Amount paid in interest on indebtedness	Amount paid on principal
1	150	108		15	30		10		25	300	50				150	100	
2	180	2	20	36	47		22	1	30	28	32	2			3605	270	2400
3	251	119	288	18	93	Poor	49	32	62	229	221	53		4844	191	1125	2100
4	1255	115	4	257	72	193	83		225	471	311	22			3609	550	5000
5	1450	352	21	97	85	22	21	3	93	72	242	118		998	519	115	7350
6	121	261		51	5	10			7	20		90				17	
7	1664	224	120	151	334		72		77	225	342	211	2900		1039	889	10000
8	138	6	135	64	30		33	12	17	353	98				131		19000
9	1334	335	70	76	68		82	12	93	256	409	203			1842	2077	36983
10	2677	254		73		36	199		45	944	205	36	392		3300	30	
11	277	107	2		40						240					388	2900
12	525	714		29	218		4			601				40233	362	1040	8550
13	235	1654		186	284		270			521	255	1061			16211		
14	1220	149	682	270	160		55	147	68	371	535					1598	2622
15	904	159	40	38	59		44	19	3	27	341				219		
16	799	13	12	32	50		12	15	11	54	53	48		2000			
17	487		91	100	45		48	13		144	43	7	568		105		
18	175	152		23	15		3				18				312	923	
19	400	50	156		42		12	100		600	200					350	3000
20	624	120		18	75		34		21	315	24	47				1890	5100
21	2035	31	15	47	35		36	2	104		56	11				347	5742
22	1425	65		40	60		90	4	40	218	72					1275	2122
23	1310			16	99	Poor			54	20		90					
24	581	30		32	40	284	12		57		214					375	6000
25	1877	577	18	200	146		199	42	180	814	204	264		1525	1657	5456	41975

TABLE LXXVIII

PERCENTILE DISTRIBUTON OF SCHOOL EXPENDITURES IN TOWNSHIP DISTRICT SCHOOLS

Number of township	Teachers	Total of all other expenditures	Business administration	Legal service	Institute fees	Transfers	Janitor service	Office and supervisors' supplies	School supplies	Janitors' supplies	Laboratory, Manual Training and Domestic Science supplies	Special lectures and commencement expenses
1	64.87	35.13	7.72		2.78	8.68	2.27		.27	.35		.41
2	69.67	30.33	6.36	.05	5.75		1.98	.09	1.39	.62		
3	67.65	32.35	9.70	.03	4.20	3.26	3.06		.83			
4	65.08	34.92	8.25		3.68	13.28	.01	.16	.47	.23		
5	70.08	29.92	9.60		1.46	7.71	2.25	.06	1.38	.29		.49
6	72.05	27.95	6.01		3.56	.56	2.74		1.26	.34		
7	62.40	37.60	14.61		4.81	3.63	.07	1.11	1.21			.10
8	68.50	31.50	9.45	.02	2.94	3.30	2.34	.41	.12	.56		
9	68.35	31.65	7.92		2.61	4.10	2.57	.09	.41	.06		.61
10	66.66	33.34	7.34		2.87	8.76	2.20		1.76			.34
11	51.35	48.65	6.71		2.38	30.50		.31	1.20	.57		
12	54.78	45.22	8.31		2.65	22.55		.40	.48	.16		
13	51.30	48.70	5.17		2.28	16.60			1.42	.43		.18
14	57.65	42.35	9.85		3.38	12.22	3.14	.18	2.01	.15		1.06
15	54.61	45.39	22.63		2.35	1.45	2.05		3.95			
16	49.23	50.77	9.71		4.21	21.10	2.16	.16	1.78	.35		
17	72.62	27.38	6.56		1.11		2.32		5.46			
18	69.19	30.81	9.13		3.48		2.51		.55	.17		.17
19	70.25	27.75	9.12		2.46		1.58	.23	.03	.28		
20	74.22	25.78	5.45		1.78		2.90	.04		.22		.19
21	59.35	40.65	10.20		3.94	22.85	2.46	.07	.27	.20		.33
22	67.54	32.46	8.58		3.32	4.14	.10	.13	2.21	1.23		.22
23	61.07	38.93	4.94		3.06	9.20	2.57	.08	.77	.31		
24	54.64	45.36	11.20		2.75	12.75	1.46	.21	.48			.43
25	68.90	31.10	10.07		3.05	3.98	2.14	.70	1.32	.32		.24
26	36.77	63.23	4.32		1.77	22.48	1.94	.24	2.25	1.04		.21
27	53.88	46.12	6.54		2.32	12.75	1.75	.32	1.30	.21		
28	52.13	47.87	5.45		2.46	19.85	1.86	.41	3.95	1.21		.21
29	40.92	59.08	5.83	.09	1.84	19.62	1.34		4.36	.48		
30	57.26	42.74	12.13	.02	2.13	4.36	1.79	.13	1.38	.75		.51

TABLE LXXVIII (*Continued*)

Number of township	Fuel	Water	Repairs	Additional furniture	Rent	Printing and advertising	Census	Transportation of pupils	Freight, express and drayage	Telegraph and postage	Insurance	Reference and supplementary books	Miscellaneous
1	4.26		3.34			.46	.08	3.74	.16	.08	.81		
2	3.74		5.85	.06	.31	.07	.48	2.04	.10		1.48		
3	4.54		.68	.41	.29			5.85					
4	4.36		1.41	.30		.06	.37	2.00				.10	
5	3.30		1.62				.07		.53				.26
6	5.68		3.68				.22	3.16	.32	.07	.64	.36	
7	7.76		.34			.07	1.04				2.44	.52	
8	2.02		3.38		.09			6.71		.09			
9	6.14	.31	.61	.77			.37	2.33				.92	1.21
10	4.50		3.72	.81		.18			.07		.72	.10	
11	1.58		3.38	.09	.32	.09	.91		.04	.04	.34	.18	
12	3.66		3.35		.80		.74		.18	.03	1.26		.22
13	3.79		5.42				.30	13.04	.09	.15	.24		
14	2.48		6.78			.34		.12	.28			.15	
15	3.15		3.63		1.88		.87				2.46	.40	.65
16	3.95		5.63		.75		.45			.06	.60		
17	2.00		2.46				1.87	4.38		.08	.67	.34	
18	4.20		1.82	2.89			.69	4.58	.17				.07
19	3.28		1.44			.38		10.20	.41	.16		.15	
20	3.47		5.45			.06		3.38			2.57		
21	4.00	.09	1.99	2.31	.47	.29	.76	9.38	.27	.02		.42	
22	4.62		2.48		.73		.42	1.94	.22		1.32	.65	
23	2.81		1.74			.30	.34	9.30	.03	.03	.76		2.68
24	4.78		2.15			.83		7.52	.55	.05	.40	.25	
25	8.24		1.24										
26	3.28		3.46	.69		.10	.27	20.85	.12	.09	.69		
27	4.40		3.44	.32	1.06		.32	10.80		.01	.81	.02	.08
28	4.98		3.56				.33	3.42	.20	.05			
29	2.36		1.84	1.64	.22	.05	.46	18.18	.17	.02	.27	.46	
30	3.63		2.36	.45		.39	1.13	10.04	.20	.05	1.46	.28	

deficit in the tuition fund. Township trustees may pay transfer fees of pupils from one corporation to another, either from the special school fund or the township fund. In all cases where money was paid out of the township fund for the transfer of pupils and salary of township trustees, these expenditures are included in the total expenditures for maintenance and operation in the schools of that corporation. The total amount spent by each corporation for the maintenance and operation of the school for the school year in the different types of corporations are given in Tables LXXIV, LXXV, LXXVI, and LXXVII. It will be observed that the expenditures are divided into two classes. The first includes what are called current expenses, while the second included additions and permanent improvement, including the public library expenditures, which are met by special tax levies. The percentile distribution of current expenses in each corporation of the four types of schools are given in Tables LXXVIII, LXXIX, LXXX, and LXXXI. While this distribution gives an adequate basis for the comparison of one school corporation with another of the same type, the distribution of current expenses on the basis of cost per pupil as given in Tables LXXXII, LXXXIII, LXXXIV, and LXXXV give a very much more satisfactory basis for comparison of the schools of one type with the schools of another. The central tendencies and deviations from central tendencies for both the percentile distribution and the distribution on the basis of cost per pupil are given in Table LXXXVI.

In order that there may be no misunderstanding as to the meaning of the tables, it may be stated that the first group giving the gross amounts is to be read as follows: township number one spent for all purposes for the school year, the total amount of $3,690.00, of which $2,389.00 was for the payment of salaries of teachers, $275.00 for business administration, $107.00 for institute fees, $320.00 for transfers, etc. The second group of tables is to be read in like manner. The distribution of the total current expenditures of township number one is as follows: 64.87 per cent of the total amount was spent for payment of salaries of teachers; 35.13 per cent was for all other purposes; 7.72 per cent of the total expenditures was for the business administration; 2.78 per cent for institute fees; 8.68 per cent for transfers; 2.27 per cent for janitor service, etc. The third group of tables are to be read as follows: The total cost per pupil in township number one for the school year was $29.28, of which $18.95 was spent for payment of salaries of teach-

ers; $10.33 for all other current expenses, of which $2.18 was for the business administration; $0.85 for institute fees; $2.54 for transfers; $0.67 for janitor service, etc.

Before attempting an interpretation of these tables, it may be well to explain some of the items under which the expenditures are grouped. In all tables, except the first in each group, it will be observed that a certain amount of money was paid for supervision. The reason for not including the amount of money spent for this purpose as a part of the current expenses of the teaching staff, is that the fund from which this money is paid is different from that provided for the payment of salaries of teachers, the former being paid from the special school fund and the latter from the tuition fund. All superintendents and principals who give their entire time to instruction are paid out of the tuition fund, but if a superintendent spends a part of his time in supervision and a part of his time in giving instruction in the high school, his salary is likewise divided, one part being paid out of the special school fund, and the other, out of the tuition fund. All supervisors who supervise the work of other teachers and give no class instruction are paid out of the special school fund, but if they devote their whole time to class instruction they are paid out of the tuition fund. That is, all supervisors are considered administrative officers rather than teachers, so in all comparative statements, expenditures for this purpose are kept separate from expenditures for teachers' salaries.

All expenses involved for the administration of schools outside of the superintendent's salary, legal service, and the expense for taking the school census are included under business administration. In the township where the township trustee is the school official, the total amount paid for his services is included in these tabulations. This, however, is not exactly accurate, since this officer exercises the three-fold duties of administering the schools, looking after all the roads of the corporation except the macadamized, which are under the jurisdiction of county officials, and caring for the poor. But since we have no basis for distribution of his salary, it is necessary to include the total amount in these tabulations. In a few of the reports in which the trustees gave itemized statements, it was observed that approximately three-fifths to two-thirds of the total expenditures were for looking after the schools. There are other officials who would be able, under a different organization of schools, to exercise these other duties with little or no additional

expense, so that it is not an inequitable basis to include the total amounts.

As was explained in a previous chapter, the expenditures for institute fees is the money paid teachers for attending township institutes, so that this item of expenditure will apply only to schools under the jurisdiction of the county superintendent, except a few towns in which school officials pay their teachers when attending a local township institute. In the expense accounts of practically every school corporation a certain amount of money was paid for the commencement exercises including a commencement speaker, music, and decorations. Also a few of the corporations arranged for special lecturers to come before the teachers and give addresses along educational lines. The expenses for these two purposes are included under the item "Commencement expenses and special lectures." Expenditures for the transportation of pupils appear in the accounts of the townships with consolidated schools and a few of the townships with district schools where an outlying school has been abandoned and the pupils transported to the nearest school in that corporation. For all other items given in these tables, the headings will indicate the nature of the expenditures.

Since the purpose of this study is to determine the relative standing of the schools of one type with those of another, little attempt has been made to determine the relation of one school in the various items with other schools of the same type, but anyone interested in this phase of the work can take the data given and easily determine this for himself by methods similar to those used by Dr. Strayer in his *City School Expenditures.* By referring, however, to the central tendencies and deviations as given in Table LXXXVI, as well as the percentile distribution of expenditures as given in Tables LXXVIII to LXXXI, it will be observed that there is no marked central tendency and that variation is the chief characteristic. The extent of the variation may be observed in townships with district schools by referring to Table LXXVIII. Township number twenty, which devotes 74.22 per cent of the total expenditures to the payment of salaries of teachers, expends twice the amount, relatively speaking, for this purpose as does township number twenty-six which spends 36.77 per cent. Naturally the inverse variation in the amount spent for all other current expenses will be found. Even a greater variation will be observed in the expenditures for business administration. Township number fifteen

spent 22.63 per cent for this purpose, while township number twenty-six spent only 4.32 per cent. It is difficult to understand how any school corporation can devote one-half of the total current expenses, not including teachers' salaries, to this one item, as is the case in township number fifteen, which is two-fifths as much as is paid for the salaries of teachers for the school year. The variation in the amount paid for transfers is to be expected and is not difficult to understand. The variability in the amounts paid for janitor service, is due in part to the practice of some township trustees, who, in order to economize, require teachers to take care of their own school buildings or pay for the same out of their own salaries, while others are more liberal and will pay even more than is required for the care of the building, in order to raise the salaries of the teachers. A somewhat similar situation exists with reference to the amount expended for school census. Some township trustees take the enumeration of the school children themselves and include the expense of the same as a part of their salaries, while others, in order to pay some political debts, may employ their "heelers" to take the enumeration with liberal compensation, but in most cases reports indicate that only fair salaries have been paid for this work. The amount spent for fuel and repairs as well as one or two other items vary greatly from the central tendency, ranging from less than one per cent to three times the average for the group. The amount spent for transportation of pupils by townships with district schools shows how extensive is the practice of combining districts in communities with decreasing population.

The expenditures in townships with consolidated schools, on the whole, do not vary so greatly as in townships with district schools. The lack of uniformity in the matter of supervision and the great variation in the amount spent by corporations for this purpose is due in part to the method of accounting by the school officials. The same variation will be observed in the table for town schools.

The variation in the per cent of the total expenditures used for the payment of salaries of teachers in consolidated schools is due to the variation in amount paid for transportation of pupils. For example, township number one pays 26.43 per cent for teachers' salaries and 43.6 per cent for transportation, while township number thirteen spends 64.1 per cent for teachers' salaries and only 16.08 per cent for transportation. While the variation in the amount re-

quired for business administration in consolidated schools is not so great as in townships with district schools, it is quite marked as will be seen by comparing township number fourteen, which spends 11.08 per cent of the total expenditures for this as compared with 1.31 per cent spent by township number fifteen. Except in a few of the townships in which there are no high schools the amount required for transfers is quite small as compared with townships with district schools, yet the additional amounts paid by the latter do not equal the additional amount required by the former for transportation. In other items the variation within the group is not so marked.

Much greater uniformity is observed in the expenditures of town than in the township schools, except in supervision, which has already been noted. The variation in per cent of total expenditures devoted to the salaries of high school teachers is due to a large extent to the number of high school pupils received from the surrounding country as is indicated by the amount received for transfers by these towns. The economy which most towns have to exercise prevents any unusual variation in most expenditures.

The tables giving the distribution of expenditures on the basis of cost per pupil in average daily attendance show similar variations among the corporations of each group, but give a much better basis for the comparison of schools of one type with the schools of another.

Table LXXXVI makes possible the comparison of one type with the others in each of the items given. It will be observed that a much smaller per cent is paid for the salaries of teachers in townships with district and consolidated schools than is paid in either the town or city schools. That is, in the case of consolidated schools one-half of the total expenses of maintenance and operation of schools is devoted to the payment of salaries of teachers, as compared to three-fifths of total expense in the case of townships with district schools and three-fourths the total expense in town and city schools.

Since townships with consolidated schools, as well as townships with district schools, spend a much smaller per cent for teachers' salaries than do town and city schools, it naturally follows that a larger per cent of the total expenditures is devoted to miscellaneous current expenses by these corporations. By referring to the summary of the percentile distribution of expenditures as given in the

upper part of Table LXXXVI, it will be seen that city schools spend 5.96 per cent of the money for schools for supervision, and that towns spend 5.3 per cent with a variability of 4.28 per cent and that townships with consolidated schools spend .5 per cent for this purpose. This comparison, however, is misleading when we consider the facts given in the chapter on supervision, which shows that little real supervision was done outside of the city schools. The amount expended by towns for this purpose is, as has been explained before, due for the most part to the method of accounting in the different towns. When we remember that the tuition levy in many of the towns was the maximum amount permitted by law, it is readily understood why these corporations would draw from a special school fund for the salary of the head man and charge it to supervision. We see that townships with district schools spend 7.55 per cent with a variability of 1.93 per cent and townships with consolidated schools spend 6.4 per cent with a variability of 2.9 per cent for business administration as compared with .94 per cent for town schools and .63 per cent for city schools, thus in ratio to the total expenses, it costs from seven to fifteen times as much for the administration of the township schools as it does the urban schools. The two expenditures, institute fees and transfers, are common only in the township schools and are determined by fixed factors. Institute fees vary only with the salaries of the teachers in each corporation, while transfers vary according to the number of children attending school in some other corporation than the one in which they reside. Since the townships with district schools have no high school facilities, naturally these corporations pay a much larger amount for transfers than do townships with consolidated schools. Likewise, there is a much more pronounced variability. The larger the school organization the greater the per cent required for janitor services; townships with district schools spending 1.74 per cent of the total amount required for maintenance and operation, while consolidated schools spend 3.68 per cent, town schools spend 4.92 per cent, and city schools spend 5.88 per cent. Little variation was found in the relative amounts spent for office, school, and janitors' supplies, while towns spend a little larger amount for laboratory, domestic science and manual training equipment. Township and town schools vary little in the relative amount required for fuel, while city schools spend less than one-third that required by other corporations. Townships with district schools and town schools spend an

equal per cent for repairs, which is slightly more than that spent by city schools and about twice as much as is required by consolidated schools. The reason so little is spent for repairs by consolidated schools is due to the fact that a great number of the buildings are practically new. There is no marked variation in the amount spent by the different types for printing and advertising, freight, expressage, and drayage, telegraph, telephone, and insurance, but as is indicated under equipment, towns and cities are more liberal in their support of the school libraries.

By referring to the lower part of Table LXXXVI, which gives the central tendencies and variabilities on the basis of cost per pupil, it will be observed that in the relative standing of the four types of schools for the various items given is quite different from that given in percentile distribution. The average cost per pupil in townships with district schools is $34.50 with a variability of $7.20 as compared with a cost of $44.85 with a variability of $5.71 in townships with consolidated schools, $27.02 with a variability of $2.96 for town schools, and $32.75 with a variability of $4.76 for city schools. On the basis of actual cost per pupil in average daily attendance for maintenance and operation, we see that it costs nearly twice as much to maintain the consolidated schools as it does the town schools, and one-third more than it does the townships with district schools or the city schools. While in the percentile distribution it was seen that towns and cities spent a much larger per cent for teachers' salaries than for other purposes, on the basis of cost per pupil, towns spend less money for teachers' salaries than any other type, spending on an average $19.91 with a variability of $2.07. Townships with district schools spent an average of $20.31 per pupil for teachers' salaries with a variability of $3.99, townships with consolidated schools, $22.06 with a variability of $4.53 per pupil, and city schools an average of $24.22 with a variability of $2.54 for this purpose. The greater amount spent by city schools is due in part to the fact that cities have a longer term of school than any of the other types. It may be added while speaking of the relative amounts spent for teachers' salaries, that the distribution of expenditures for grade and high school teachers on the percentile basis gives a fair relative standing of the different types. The amount given in the lower table on the basis of actual cost per pupil is not intended to express the actual cost for high school and grade instruction, respectively, but merely the average cost for

all pupils for these two items. The reason for this is that in all reports, as has been stated, the average daily attendance was given in totals; so it was impossible to determine the average daily attendance in high schools per pupil from the average daily attendance in the grades, and it was also impossible to determine the exact cost per pupil for instruction in the high school and instruction in the grades separately.

When we compare the different types of schools as to the amount required for business administration, we see that townships with consolidated schools, which spend an average of $2.74 per pupil and townships with district schools which spend an average of $2.58 per pupil, require eight to ten times the amount spent by towns and cities which spend $0.29 and $0.21, respectively, for this purpose. The variation in the relative amount required for janitor service revealed by the percentile distribution is not so marked when we consider the amount on the basis of cost per pupil, though the same relative standing of the different types of schools prevails. No marked variation in school and janitors' supplies, additional furniture, rent, printing and advertising, census, freight, express, drayage, telegraph, postage, telephone, insurance, laboratory, and commencement expenses, on the basis of cost per pupil, are observed, while city schools spend a much smaller per cent for fuel on actual cost per pupil basis. The amount spent by consolidated schools for the transportation of pupils is $11.50 with a variability of $2.43, which is an expenditure peculiar to this type of schools.

The fact that there is a great variation in the total cost per pupil in the different schools of each type, naturally leads to the inquiry as to the distribution of the additional amount spent by these schools over the amount spent by other corporations whose total amount is much less, on the amount spent for teachers' salaries. In order to determine this fact, eight corporations in townships with district schools, town, and city schools, and six in the township consolidated schools, respectively, were selected in the order of total cost per pupil, beginning with the highest. In like manner an equal number of corporations were selected from each type beginning with the lowest. The per cent of the total cost spent for teachers' salaries, the per cent spent for all other school purposes, the wealth per capita, and the tax levies, for these corporations, were taken from other tables and compiled in Tables LXXXVII, LXXXVIII, LXXXIX, and XC, in order to give some basis for comparing the

corporations spending the greater amount with the corporations spending the lesser amount. The averages for each group were determined and are given in Table XCI, together with the deviations from the average for the group.

We find that the upper group of townships with district schools spend an average of $50.89 per pupil as compared with $22.26 per pupil by the lower group;—that is, the higher group spends an average of $16.83 more than the average for the entire group of townships, while the lower group spends $11.80 per pupil less than the average for the entire group. When we come to the distribution of these funds, we find that the group expending the greater amount for schools spends only 1.2 per cent more for the salaries of teachers than the average of the entire group, which is not nearly so large a per cent as is spent by the lower group, which spends 7.5 per cent more than the average for the entire group. The wealth per capita of the higher group exceeds the average for the entire group $11.37, while the average for the lower group is $1,093.00 less than the average for the entire group, or, in other words, the average wealth per capita for the higher group is more than twice the average wealth per capita for the lower group. The levy for tuition purposes for the upper group is only one cent on the hundred dollars less than the average for the entire group and seven cents less than the average for the lower group. The same observation may be made with reference to the tax levy for special school fund. The levy for the upper group is only three cents less than that for the average for the whole group and seven cents less than that for the lower group. A wider variation, however, prevails in the total amount of the tax levy. The average total levy for the higher group is sixteen cents on the hundred dollars less than that for the average of the total group, while the lower group is forty-five cents greater than that for the average of the entire group or sixty-one cents on the hundred dollars more than that for the higher group. The lower group of townships, spending a smaller amount per capita for the schools, spends a relatively larger per cent for the teachers' salaries, but the additional tax levy for school purposes in this group is not sufficient to equal the great difference observed in the wealth per capita of the two groups.

When we compare the higher group of townships with consolidated schools with the lower group of the same type, we find that there is very little difference in the relative amount spent for teach-

TABLE LXXIX

PERCENTILE DISTRIBUTION OF SCHOOL EXPENDITURES IN TOWNSHIP CONSOLIDATED SCHOOLS

Number of township	Teachers			Total of all other expenditures	Supervision	Business administration	Legal service	Institute fees	Transfers	Janitor service	Office and supervisors' supplies	School supplies	Janitors' supplies
	High school	Grades	Total										
1		26.43	26.43	73.57		8.58		1.32	11.75	3.12	.02	.91	.21
2	15.75	35.90	51.65	48.35		8.74		1.86	2.91	1.31	.09	.37	.08
3	23.01	30.75	53.76	46.24		6.27		1.76	.35	1.84	.02	1.30	.53
4		37.64	39.36	60.64	1.73	5.96	.43	.92	3.31	2.37	.01	1.84	.33
5	18.34	34.60	52.94	47.06	6.18	3.88	.07	2.20	.48	1.68	.02	1.42	.22
6	19.41	31.55	50.96	49.04		4.32		2.55	.16	4.40	.08	.79	.45
7	28.85	25.90	54.75	45.25	1.51	6.56	.12	2.92	.11	3.65	.09	5.01	.22
8	13.02	36.65	49.67	50.33	1.62	4.26		1.94	2.25	6.81	.50	.25	
9	28.25	23.50	51.75	49.25		5.97		2.81	3.38	3.55	.39	.59	.15
10	18.01	36.80	54.81	45.19		2.84		2.37	.36	4.34	.09	.59	.19
11	16.05	33.75	49.80	50.20		5.72		2.28		3.58	.09	2.62	.46
12		35.90	35.90	64.10		5.30	3.05	1.53	7.41	3.71	.14	1.21	.32
13	27.01	34.45	61.46	38.54		9.81		2.48		3.32	.07	.97	.05
14		42.20	42.20	57.80		11.08		2.41	2.28	4.24	.04	1.12	.78
15	22.10	32.20	54.30	45.70		1.31		2.36	3.02	2.72	.29	.83	.13
16		52.40	52.40	47.60		6.68		2.14	1.08	3.96	.36	1.12	.20
17	16.80	23.82	40.62	59.38		8.08		1.77		3.92		2.60	.18

TABLE LXXIX (*Continued*)

Number of township	Laboratory, Manual Training and Domestic Science supplies	Special lectures and commencement expenses	Fuel	Light and power	Repairs	Additional furniture	Rent	Printing and advertising	Census	Transportation of pupils	Freight, express and drayage	Telegraph and postage	Telephone	Insurance	Reference and supplementary books	Miscellaneous
1		.25	2.76		.54	.16		.25		43.60					.15	
2		.22	4.46		1.58	.65	.41	.26		21.45	.11	.03	.01	3.48	.21	.03
3		.25	4.15		2.06	.94	.05		.11	25.50			.19	.58	.02	
4		.21	5.04		3.31	1.18		.47		34.20	.08			.95		
5	.44	.11	6.04		2.12	.30				27.41			.18		.04	.03
6		.28	4.86		1.80	.61	.08	.22	.16	27.45		.05	.08	.73	.02	.08
7	1.18		.46		1.57	.03		.34	.10	20.50	.22		.16	.04	.70	
8	.87		2.64		2.12	.23			.07	25.75	.65		.06		.09	
9	.76	.02	6.07		.58			.03	.34	23.40	.12			.13		
10	1.74		4.53		1.06	.79	.07	.01	.28	27.60	.13	.02		1.58	.07	.12
11	.12		3.55	.16	1.47	.70		.12		27.51	.29	.03		1.29		.04
12			5.50		1.38	.06	.15	.29	.30	29.48	.90	.03	.35	1.46	1.09	
13	.79		2.09		2.90		.73	.03		16.08	.51			.70	.59	.05
14	1.14		3.54		1.08	1.18	.71		.50	22.35	.09				.51	
15	1.10	.51	3.88		.67	.35	2.17			15.98				.84	.12	
16	.25	.92	7.76		1.39			.20	.36	19.95	.27				1.19	1.57
17	1.24	.51	5.47		2.87		.42	.84		26.15	.01	.02	.51	2.19	1.18	.11

TABLE LXXX

PERCENTILE DISTRIBUTION OF SCHOOL EXPENDITURES IN TOWN SCHOOLS

Number of town	Teachers			Total of all other expenditures	Supervision	Business administration	Legal service	Institute fees	Transfers	Janitor service	Office and supervisors' supplies	School supplies	Janitors' supplies
	High school	Grades	Total										
1	27.85	47.85	75.70	24.30	8.86	.84		2.38		4.76	.03	.97	.04
2		77.65	77.65	22.35		1.83				1.82	.08	.57	
3	24.42	45.07	69.49	30.51	12.28	.51				4.32	.03	3.06	
4	35.94	40.85	76.79	23.21		1.16				5.35		1.00	.37
5	30.20	34.66	64.86	35.14	7.66	1.52	2.80			7.85	.14	1.12	1.38
6		82.12	82.12	17.88		1.67	.34			3.91		.11	
7	30.25	41.85	72.30	27.70	4.62	.69				4.98	.35	5.23	.61
8	37.75	39.40	77.15	22.85		.84			.61	4.96	.17	.15	
9	36.90	45.05	81.95	19.05		.30				4.95	.27	.25	.69
10		83.20	83.20	16.80		3.62						2.07	
11	30.80	37.75	68.55	31.45	14.42	.92				4.55		.35	.32
12	32.50	48.45	80.95	19.05		1.65	.07	.21		4.88	.05	1.28	
13	32.15	44.25	76.40	23.60		1.12	.05			4.45		3.58	.24
14													
15	28.75	47.65	76.40	23.60	7.30	.89	.10			6.82	.07	.83	.25
16	29.80	45.65	75.45	24.55	4.81	.79				4.42	.20	1.01	.25
19	38.65	45.90	84.55	15.45		.56			.11	4.95	.09	.85	.11
18	28.40	40.10	68.50	31.50		1.29				6.78			.57
19	23.00	61.60	84.60	15.40	1.38					3.61		.75	
20	25.40	44.60	70.00	30.00	14.62		.70			4.56	.04	.86	.08
21	33.78	42.50	76.28	23.72	13.78	.88				3.34	.48	.11	
22	43.75	34.00	81.75	18.25	4.34					3.94	2.11	.97	
23	25.65	34.20	59.85	40.15	11.14	.94				3.76	.16	3.40	.26
24	27.60	30.85	58.45	41.55	4.51	1.63		3.80		7.22		7.91	.51
25	34.95	42.60	77.55	22.45		.71		3.25		3.95	.24	5.28	.24
26	26.30	47.05	73.35	26.65		1.30				5.32	.62	1.55	.24

TABLE LXXX (*Continued*)

Number of town	Laboratory, Manual Training and Domestic Science supplies	Special lectures and commencement expenses	Fuel	Light and power	Repairs	Additional furniture	Rent	Printing and advertising	Census	Transportation of pupils	Freight, express and drayage	Telegraph and postage	Telephone	Insurance	Reference and supplementary books	Miscellaneous
1	.18	.34	4.23	.18	2.38			.14	.15		.04			.21	.47	
2		.21	2.38		7.38	.57			.29		.04				.88	
3		.06	2.20		5.87			.76	.73		.07					
4	.23	.45	2.90	.63	8.52			.20	.17	.12				.82		1.12
5	2.45		4.96	.56	1.62	.16		.30	.35	.03	.18		.01	1.88	.37	.23
6			3.38		4.14	3.26		.11	.34		.29	.29				
7	1.56	.17	4.82		1.24	1.33			.57		.36	.01	.12		1.58	.08
8	1.30		3.96		3.56	1.76			.21		.02			2.84	2.27	
9	.22		4.40	.27	.85	.71			.10		.11		.08	2.97	1.98	
10			.38		4.75		4.82		1.04					.86		
11			2.20		5.29			.20				.11		.41		2.58
12	.71	2.22	2.28	1.15	2.50	1.33		.23	.34		.07		.28		.30	
13		.24	7.54		4.42	.85		.12			.09			.59	.28	
14																
15		.02	4.78		2.34			.12	.18							
16	1.84	.27	5.58	.45	1.69	.23		.17			.28	.81	.19	.36	.62	
17		.11	3.28		2.01	.56		.26	.15		.01	.01		2.16	.07	
18	1.02	1.53	4.71		1.53			.20	.15	11.28	.05	.26		.87	1.22	
19		.22	5.62		.91				.38	2.61						
20	.94		2.91	.44	2.24	.66		.21	.13		.08		.25	1.28	.28	.15
21		.99	3.16													
22		.28	3.97		4.49			.24	.11		.01			1.85	.05	.51
23	7.28		3.12		3.12	.76		.42	.17		.11	.04		.44	4.16	.87
24		1.05	6.92	.11	5.62	1.34		.20	.18		.22				.10	
25		.34	3.95		2.38			.24	.16		.19		.28		1.27	
26	.11	1.06	4.85		4.61	2.44		.13	.16		.78		.26	3.16		.18

TABLE LXXXI

PERCENTILE DISTRIBUTION OF SCHOOL EXPENDITURES IN CITY SCHOOLS

Number of city	Teachers			Total of all other expenditures	Supervision	Business administration	Legal service	Institute fees	Transfers	Janitor service	Office and supervisors' supplies	School supplies	Janitors' supplies	Laboratory, Manual Training and Domestic Science	Special lectures and commencement expenses
	High school	Grades	Total												
1	25.70	50.80	76.50	23.50	6.90	1.04				5.40	.07	1.39	.35	.92	.11
2	32.50	38.80	71.30	28.70	10.10	1.01				5.32	.20	1.74	.26	1.48	.38
3	30.70	47.60	78.30	21.70	9.15	.07	.06			4.71	.35	.47	.08	.47	.17
4	23.80	53.10	76.90	23.10	5.11	.57	.41			4.91	.78	.82	.56		.09
5	23.45	48.98	72.43	27.57	6.81	.79				4.86	1.73	.50	.24	1.32	.16
6	18.05	60.50	78.55	21.45	7.51	.69				5.95	.08	1.36	.24	.61	
7	25.40	48.00	73.40	26.60	3.74	.56	.04		.13	7.80	.43	1.36	.29	.68	
8	26.80	48.70	75.50	24.50		1.73	.65			5.82	.41	2.74	.07	.05	.29
9	23.80	46.50	70.30	29.70	3.83	.62	.05			8.90	.52	2.07	.62	2.03	.37
10	19.20	50.10	69.30	30.70	5.92					5.60		1.84	.07	1.02	
11	27.10	52.10	79.20	20.80	5.30	1.03	.44			3.97	.38	.51	.32	.02	.17
12	18.80	68.20	87.00	13.00	4.00	.77						.16	.37	.05	.17
13	17.78	55.75	73.53	26.47	2.99	.72			.76	6.11		4.66			
14	21.80	49.75	71.55	28.45	4.02	.29		36 (c)	.11	7.82	.19	1.10	.27	.79	.09
15	26.85	39.30	66.15	33.85	9.88	.82	.03			5.12	.12	2.76	.34	.30	.08
16	23.40	43.50	66.90	33.10	12.05	.62				5.38	.07	.93	.22	1.17	.18
17	26.80	41.60	68.40	31.60	6.05	.78				9.05	.23	1.56	.51	.83	
18	22.33	53.60	75.93	24.07	12.80	.45				4.96	.08	.70	.23	.30	
19	20.02	49.60	69.62	30.38	12.42	.72				4.98	.25	1.08	.50	.67	.25
20	21.60	54.00	75.60	24.30	5.58	1.14	.33		.04	7.02	.28	1.16	.08	.30	
21	25.75	46.60	72.35	27.65	7.25	.24	.03		.43	4.14	.02	1.32	.06	1.87	.23
22	21.40	40.05	61.45	38.55	11.33	.68	.11			4.42	.07	1.92	.57	3.54	.22
23	23.10	53.50	76.60	23.40	3.95	1.95				7.01	.84	1.06	.09	.08	.10
24	21.80	51.75	73.55	26.45	6.93	.65				4.97	1.12	.64	.23	1.18	
25	17.60	58.75	76.35	23.65	2.71	.57	.12			6.71	.67	1.26	.18	.45	.06

TABLE LXXXI (*Continued*)

Number of city	Fuel	Light and power	Water	Repairs	Additional furniture	Rent	Printing and advertising	Census	Transportation of pupils	Freight, express and drayage	Telegraph and postage	Telephone	Insurance	Reference and supplementary books	Miscellaneous
1	3.46	.92		.69	.47		.07	.14		.05		.12	1.39	.23	
2	4.20	.06		1.22		.13	.24	.31		.14		.20	.19	.21	
3	2.64	.21		.52	.24	.58		.19		.10	.06	.13	.47	.45	.11
4	2.78	.41		2.51	.24		.52	.14	.39(a)	.17		.46	.96	.63	.06
5	3.63	.52		3.84	.93	.06	.26	.22	.06	.05	.01	.24	.19	.64	.31
6	2.36	.16		.53	1.16		.22	.02				.03	.09		.40
7	5.20	.31		3.13	.42	.22	.27	.62		.13		.14	.42	.64	.39
8	4.81			1.20	.05	1.20	.54	.26		.28	.10	.15	3.05	.85	
9	3.30	1.28	.14	2.77	.73	.14	.16	.12		.17	.03	.19	.53	.84	.43
10	2.45			8.12	.77		.22		.11(b)	.60		.14	2.86	.62	.11
11	2.60	.16		2.45	.95	.02		.35						2.12	
12	2.35	.25		1.38	1.76		.07	.54		.01			1.48		
12	4.14	.81		.32	2.12		.25	.38		.37			.71	.35	1.44
14	4.18	2.46		2.20	.27	1.25	.49	.29		.10	.27	.12	.64	.98	
15	5.13	.28		4.95	.87	.24	.21	.32		.24	.10	.01	.14	1.87	
16	7.76	.16		3.18	.05	.05	.13	.20		.04	.06	.04	.21	.21	.19
17	5.48	2.26		1.68		.39	.43	.20		.21	.05		.62	.19	.03
18	1.77			1.17	1.00		.15	.10						.12	
19	4.06	.25		1.36	.17	.53		.14		.04	.34		2.06	.68	
20	2.80	1.01		2.17	.42		.06	.26		.12		.07	1.10	.08	.16
21	3.67	.33	.12	7.04	.11	.05	1.63	.12		.12		.37		.19	.04
22	5.58	.38		6.48	.30		.18	.27		.41		.18	.98	.33	
23	2.85	.09		3.56			.04	.27				1.48	.05		.24
24	2.38		1.64	2.53	.13		.14	.17	1.33(a)	.05		.24		.93	
25	5.12	.73	.03	2.08	.65	.02	.24	.16		.22	.04	.20	.90	.23	.29

a.—Poor. b.—Medical inspection.

TABLE LXXXII

DISTRIBUTION OF SCHOOL EXPENDITURES IN TOWNSHIP DISTRICT SCHOOLS ON BASIS OF COST IN DOLLARS AND CENTS PER PUPIL

Number of township	Total	Teachers	Total expenditure for all other purposes	Business administration	Legal services	Institute fees	Transfers	Janitor service	Office and supervisors' supplies	School supplies	Janitors' supplies	Special lectures and commencement expenses	Fuel
1	29.28	18.95	10.33	2.18		.85	2.54	.67		.08	.10	.13	1.24
2	19.79	13.79	6.00	1.25	.01	1.23		.38	.02	.26	.12		.73
3	21.06	14.21	6.85	2.05		.89	.69	.62		.17			.98
4	38.69	25.16	13.53	3.18		1.47	5.23		.06	.18	.09		1.68
5	24.35	17.09	7.26	2.43		.35	1.78	.55	.02	.34	.07	.12	.83
6	24.78	17.68	7.10	1.48		.86	.13	.68		.33	.08		1.40
7	22.91	14.30	8.61	3.43		1.05	.84	.02	.25	.28		.02	1.78
8	30.32	20.77	9.55	2.92		.88	1.00	.71	.12	.03	.18		.60
9	25.24	17.25	7.99	2.00		.67	1.17	.65	.02	.12	.01	.15	1.55
10	24.57	16.40	10.17	1.81		.71	2.15	.54		.43		.08	1.11
11	35.08	18.00	17.08	2.36		.83	10.69		.11	.42	.20		.61
12	32.98	17.98	15.00	2.75		.87	7.48		.24	.16	.10		1.25
13	35.70	18.20	17.50	1.84		.82	5.89			.51	.11	.06	1.35
14	44.01	25.40	18.61	4.34		1.49	5.41	1.38	.08	.89	.07	.47	1.10
15	36.33	19.83	16.50	8.44		.86	.52	.74		1.44			1.15
16	34.78	17.12	17.66	3.37		1.46	7.27	.75	.06	.62	.12		1.37
17	29.47	21.46	8.01	1.94		.33		.68		1.61			.58
18	19.35	13.45	5.90	1.76		.67		.48		.11	.03	.03	.81
19	73.84	50.70	23.14	6.72		1.82	1.18	.17	.02	.21			2.43
20	61.41	45.73	15.68	3.35		1.09		1.78	.03		.14	.12	2.13
21	21.27	12.62	8.65	2.21		.84	.60	.52	.01	.06	.04	.07	.85
22	31.88	21.53	10.35	2.73		1.06	1.32	.03	.04	.74	.39	.07	1.48
23	39.54	24.16	15.38	1.95		1.21	3.63	1.01	.03	.30	.12		1.15
24	37.39	20.42	16.97	4.14		.97	4.75	.51	.08	.18		.16	1.78
25	39.30	27.06	12.24	3.95		1.19	1.56	.83	.27	.52	.13	.09	3.24
26	38.81	14.28	24.53	1.68		.69	8.47	.75	.04	.87	.40	.08	1.28
27	45.08	24.30	21.78	2.95		1.02	5.71	.79	.15	.59	.09		1.99
28	36.45	18.39	18.06	1.93		.86	6.93	.65	.14	1.38	.44	.07	1.76
29	54.44	22.28	32.16	3.17	.05	1.00	10.77	.78		2.30	.10		1.28
30	49.51	28.39	21.12	6.06		1.04	2.25	.88	.07	.68	.04	.25	1.79

TABLE LXXXII (*Continued*)

Number of township	Water	Repairs	Additional furniture	Rent	Printing and advertising	Census	Transportation of pupils	Freight, express and drayage	Telegraph and postage	Insurance	Reference and supplementary books	Miscellaneous
1		.97			.13	.02	1.09	.05	.02	.24		
2		1.15	.01	.06	.01	.08	.04	.02		.28		
3		.14	.10	.06			1.13		.01			
4		.55	.12		.02	.15	.77				.04	
5		.39				.16		.14				.06
6		.91				.05	.79	.08	.02	.15	.09	
7		.08			.02	.24				.50	.12	
8		1.02		.03			2.04	.02				
9	.08	.16	.19			.09	.59				.23	.31
10		.91	.20		.04			.02		.17	.03	
11		1.29	.03	.11	.03	.32		.02	.02	.12	.06	
12		1.12		.26		.24		.06	.01	.41		.07
13		1.94				.11	4.64	.03	.05	.08		
14		2.98			.15		.05	.12			.07	
15		1.32		.66		.31				.89	.14	.24
16		1.96		.26		.15			.02	.21		
17		.72				.55	1.28		.02	.20	.10	
18		.35	.56			.13	.91	.03				.01
19		1.03			.28	7.51	.31	.12		.11		
20		3.33			.04	2.07				1.56		
21	.02	.42	.50	.10	.06	.16	1.94	.06			.09	
22		.79		.23		.13	.62	.07		.42	.21	
23		.66			.12	.13	3.17	.01	.01	.30	1.04	
24		.79			.31		2.80	.21	.02	.15	.09	
25		.41										
26		1.34	.27		.04	.11	8.11	.05	.03	.22		
27		1.56	.15	.48		.15	4.85			.36	.01	.04
28		1.25				.12	1.21	.07	.02			
29		1.00	.83	.12	.02	.25	9.89	.09	.01	.15	.25	
30		1.16	.22		.19	.55	4.99	.10	.03	.72	.14	

TABLE LXXXIII

DISTRIBUTION OF SCHOOL EXPENDITURES IN TOWNSHIP CONSOLIDATED SCHOOLS ON BASIS OF COST IN DOLLARS AND CENTS PER PUPIL

Number of township	Total	Teachers			Total of all other expenditures	Supervision	Business administration	Legal service	Institute fees	Transfers	Janitor service	Office and supervisors' supplies	School supplies
		High school	Grades	Total									
1	46.85		12.36	12.36	36.49		4.00		.61	5.46	1.46	.01	.43
2	52.58	8.25	18.96	27.21	25.37		4.60		.98	1.51	.56	.05	.20
3	32.90	7.61	10.06	17.67	15.23		2.06		.58	.12	.60	.01	.43
4	34.42		12.96	12.96	21.46	.59	2.05	.14	.31	1.24	.82	.03	.62
5	47.67	8.74	16.50	25.24	22.43	.29	1.86	.03	1.05	.23	.72	.01	.68
6	49.09	9.53	15.22	24.75	24.24		2.12		1.24	.07	2.16	.04	.39
7	50.59	14.60	13.06	27.66	22.93	.76	3.30	.06	1.47	.05	1.83	.05	2.53
8	41.81	5.47	15.38	20.85	20.96	.68	1.78		.81	.94	2.75	.21	.11
9	38.58	10.87	9.04	19.91	18.67		2.31		1.08	1.30	1.38	.15	.23
10	48.45	8.73	17.79	24.52	23.93		1.86		1.15	.17	2.10	.04	.24
11	57.35	9.18	19.24	28.42	28.93		3.28		1.30		1.92	.05	1.49
12	55.60		20.00	20.00	35.60		2.96	1.70	.86	4.14	2.07	.07	.68
13	40.60	10.91	13.91	24.82	15.78		4.00		1.06		1.36	.03	.39
14	32.70		15.41	15.41	17.29		3.63		.75	.75	1.37	.01	.37
15	50.27	11.09	16.21	27.30	22.97		5.35		1.19	1.54	1.42	.15	.42
16	46.41		24.30	24.30	22.11		3.09		.99	.50	1.83	.17	.52
17	43.51	7.31	10.37	17.68	25.83		3.45		.77		1.76		1.13

TABLE LXXXIII (*Continued*)

Number of township	Janitors' supplies	Laboratory, Manual Training and Domestic Science supplies	Special lectures and commencement expenses	Fuel	Light and power	Repairs	Additional furniture	Rent	Printing and advertising	Census	Transportation of pupils	Freight, express and drayage	Telegraph and postage	Telephone	Insurance	Reference and supplementary books	Miscellaneous
1	.10		.12	1.33		.26	.08		.12		20.41					.07	
2	.08		.12	2.35		.83	.34	.21	.14		11.33	.06	.02	.01	1.86	.12	.02
3	.17	.08		1.37		.68	.31	.02		.04	8.52			.06	.19	.01	
4	.12		.06	1.74		1.14	.41		.15		11.73	.03			.32		
5	.10	.21	.05	2.88		1.00			.14		13.01			.09		.02	.02
6	.22		.14	2.43		.86	.31	.04	.11	.01	13.68		.02	.04	.37	.01	.04
7	.11	.56		.23		.79	.02		.17	.05	11.87	.11		.08	.02	.35	
8		.36		1.10		.88	.10			.03	10.79	.23		.03		.04	
9	.06	.29	.08	2.34		.22			.01	.13	8.98	.05			.05		
10	.09	.84	.14	2.21		.51	.38	.04	.01	.10	11.04	.06	.01		.77	.03	.06
11	.27	.07	.29	2.03	.09	.84	.52		.07		15.74	.17	.02		.74		.02
12	.18		.18	3.06		.72	.03	.08	.15	.16	16.39	.47	.02	.17	.76	.57	
13	.02	.32		.83		.12		.30	.01		6.57	.20			.28	.24	.02
14	.25	.36		1.16		.35	.48	.23		.16	7.25	.03		.01		.16	
15	.07	.54	.26	1.96		.34	.17	1.10			8.01				.43	.05	
16	.09	.12	.42	3.61		.64			.09	.17	9.19	.13				.55	
17	.08	.54	.22	2.38		1.25		.18	.36		11.37		.01	.22	.95	.51	.67

TABLE LXXXIV

DISTRIBUTION OF SCHOOL EXPENDITURES IN TOWN SCHOOLS ON BASIS OF COST IN DOLLARS AND CENTS PER PUPIL

Number of town	Total	Teachers			Total of all other expenditures	Supervision	Business administration	Legal service	Institute fees	Transfers	Janitor service	Office and supervisors' supplies	School supplies
		High school	Grades	Total									
1	26.77	7.45	12.90	20.35	6.42	2.37	.22				1.27	.01	.26
2	27.87		22.51	22.51	5.36		.54		.68		.52	.02	.17
3	41.54	10.19	18.78	28.97	12.57	5.22	.21				1.80	.01	1.27
4	30.00	10.76	12.26	23.02	6.98		.35				1.64		.34
5	27.12	8.15	9.35	17.50	9.62	2.07	.41	.76			2.16	.04	.31
6	18.92		15.53	15.53	3.39		.32	.07			.75		.02
7	30.12	9.09	12.65	21.74	8.38	1.39	.21				1.51	.10	1.59
8	23.58	8.91	9.28	18.19	5.39		.20			.14	1.17	.06	.06
9	20.48	7.53	9.23	16.76	3.72		.06				1.02	.06	.05
10	16.34		13.65	13.65	2.69		.59						.34
11	25.80	7.94	9.80	17.74	8.06	3.72	.25				1.17		.09
12	22.75	7.39	10.99	18.38	6.37		.34	.02	.05		1.09	.01	.29
13	25.92	8.32	11.49	19.81	6.11		.29	.01			1.16		.93
14													
15	27.48	7.91	13.06	20.97	6.51	2.01	.24	.03			1.87	.02	.23
16	25.28	7.66	11.70	19.36	5.92	1.18	.25				1.14	.05	.25
17	19.15	7.44	8.78	16.22	2.93		.11			.02	.95	.02	.16
18	25.18	7.13	10.09	17.22	7.96		.32				1.70		
19	32.95	7.59	20.28	27.87	5.08	.41					1.19		.25
20	31.59	7.91	14.01	21.92	9.67	4.58	.21				1.53	.01	.27
21	32.34	10.97	13.76	24.73	7.61	4.11	.28				1.08		.16
22	25.72	11.23	8.72	19.95	5.77	1.11					1.02	.54	.25
23	34.74	8.90	11.85	20.75	13.99	3.91	.32				1.30	.05	1.18
24	29.59	8.18	9.18	17.36	12.13	1.34	.48		1.12		2.15		2.34
25	26.61	9.28	11.32	20.60	6.01		.19		.81		1.05	.06	1.41
26	35.58	9.33	16.74	26.07	9.51		.46				1.90	.22	55.

TABLE LXXXIV (*Continued*)

Number of town	Janitors' supplies	Laboratory, Manual Training and Domestic Science supplies	Special lectures and commencement expenses	Fuel	Light and power	Repairs	Additional furniture	Rent	Printing and advertising	Census	Transportation of pupils	Freight, express and drayage	Telegraph and postage	Telephone	Insurance	Reference and supplementary books	Miscellaneous
1	.01	.05	.09	1.15		.64			.04	.04		.01			.06	.12	
2			.06	.68		2.14	.17			.08				.01		.26	
3			.02	.92		2.45			.32	.30		.03					
4	.11	.07	.14	.87	.19	2.56			.06	.05	.04				.25		.36
5	.37	.67		1.34	.15	.44	.04		.08	.09	.01	.05			.48	.10	.06
6				.65		.79	.63		.02	.07		.05	.06				
7	.18	.42	.05	1.46		.38	.41			.02		.11		.04	.48	.02	
8		.31		.96		.84	.42			.05					.67	.54	
9	.14	.11	.05	.90	.06	.17	.15			.02		.02		.02	.60	.30	
10				.09		.77		.74		.18					.01		
11	.08			.54		1.32			.05				.03		.12		.66
12		.16	.50	.52	.23	.57	.30		.05	.08		.02		.06		.07	
13	.06		.06	1.98		1.15	.22		.03			.02			.15	.07	
14																	
15	.07		.01	1.32		.64			.03	.05							
16	.06	.48	.07	1.44	.12	.43	.06		.04			.07	.02	.05	.09	.16	
17	.02		.02	.63		.40	.11		.05	.03					.41	.01	
18	.14	.26	.41	1.18		.39			.05	.04	2.88	.01	.06		.22	.31	
19			.07	1.84		.30				.06	.87						
20	.03	.30		.92	.15	.71	.21		.07	.04		.02		.08	.40	.09	.05
21	.04	.32		1.02		.91											
22			.08	.96		1.14			.06	.03					.48	.01	.09
23	.09	2.53		1.08		1.08	.25		.14	.06		.03	.01		.15	1.45	.29
24	.14		.32	2.06	.03	1.64	.40		.06	.05		.06				.03	
25	.06		.11	1.06		.67			.06	.04		.05		.08	.34		
26	.09	.04	.37	1.75		1.64	.87		.05	.05		.27		.09	1.13		.06

TABLE LXXXV

Distribution of School Expenditures in City Schools on Basis of Cost in Dollars and Cents per Pupil

Number of city	Total	Teachers			Total of all other expenditures	Supervision	Business administration	Legal service	Institute fees	Transfers	Janitor service	Office and supervisors' supplies	School supplies	Janitors' supplies	Laboratory, Manual Training, and Domestic Science supplies	Special lectures and commencement expenses
		High school	Grades	Total												
1	30.72	7.86	15.52	23.38	7.34	2.14	.32				1.66	.02	.42	.11	.28	.04
2	29.77	9.81	11.77	21.58	8.19	3.02	.30				1.59	.06	.52	.08	.44	.11
3	31.59	9.05	15.13	24.18	7.41	2.90	.02	.02			1.50	.11	.15	.01	.16	.05
4	28.03	6.71	14.91	21.62	6.41	1.43	.16	.11			1.37	.22	.23	.16		.02
5	36.41	8.52	17.88	26.40	10.01	2.50	.29				1.77	.62	.18	.09	.48	.05
6	24.33	4.39	14.71	19.10	5.23	1.83	.17				1.44	.02	.33	.06	.19	
7	39.80	10.05	19.03	29.08	10.72	1.48	.22	.01		.05	3.02	.18	.54	.11	.28	
8	33.69	9.03	16.47	25.50	8.19		.59	.22			1.98	.13	.92	.02	.02	.10
9	37.22	8.92	17.30	26.22	11.00	1.42	.23	.02			4.32	.19	.78	.23	.75	.14
10	37.31	7.18	18.71	25.89	11.42	2.21					2.08		.72	.03	.39	
11	30.63	8.30	15.96	24.26	6.37	1.63	.32	.14			1.22	.12	.15	.10		.05
12	28.84	5.41	19.62	25.03	3.81	1.16	.22						.05	.08	.01	.05
13	33.54	6.01	18.74	24.75	8.79	1.00	.24			.26	2.05		1.57			
14	46.50	10.16	23.10	33.26	12.24	1.87	.13		.24	.05	3.64	.09	.52	.16	.37	.04
15	32.14	8.68	12.59	21.27	10.87	3.18	.26				1.65	.04	.89	.11	.10	.03
16	28.05	6.51	12.22	18.73	9.32	3.46	.17				1.51	.02	.26	.06	.33	.05
17	26.32	7.07	10.98	18.05	8.27	1.71	.21				2.38	.06	.41	.13	.22	
18	30.62	6.79	16.54	23.33	7.29	3.90	.14				1.52	.03	.21	.07	.09	
19	29.57	5.92	14.63	20.55	9.02	3.68	.21				1.48	.08	.30	.15	.20	.07
20	36.88	7.95	19.98	27.93	8.95	2.05	.42	.12		.02	2.59	.11	.43	.03	.11	
21	31.66	8.16	14.67	22.83	8.83	2.30	.08	.01		.14	1.31	.01	.42	.02	.59	.07
22	24.54	5.24	9.94	15.18	9.36	2.69	.17	.03			1.08	.02	.49	.14	.87	.06
23	27.45	6.32	14.63	20.95	6.50	1.62	.30				1.91	.21	.29	.02	.02	.02
24	39.10	8.52	20.32	28.84	10.26	2.72	.25				1.95	.45	.25	.09	.47	
25	36.18	6.34	21.29	27.61	8.57	.98	.20	.04			2.43	.24	.46	.06	.17	.02

TABLE LXXXV (*Continued*)

Number of city	Fuel	Light and power	Water	Repairs	Additional furniture	Rent	Printing and advertising	Census	Transportation of pupils	Freight, express and drayage	Telegraph and postage	Telephone	Insurance	Reference and supplementary books	Miscellaneous
1	1.07	.28		.21	.15		.02	.04		.01		.03	.43	.07	
2	1.26	.02		.36		.04	.07	.10		.04		.06	.06	.06	
3	.84	.07		.17	.08	.19	.01	.06		.03	.02	.04	.15	.15	.03
4	.79	.11		.72	.06		.16	.04	.06	.08		.13	.27	.17	.01
5	1.31	.19		1.42	.34	.02	.09	.08	.02	.02		.09	.07	.24	.12
6	.57	.04		.13	.28		.05		.01			.01	.02		.08
7	2.29	.12		1.23	.16	.09	.11	.25		.05		.06	.17	.25	.15
8	1.62			.41	.02	.40	.19	.09		.10	.03	.05	1.03	.29	
9	1.24	.48		1.03	.26	.05	.06	.05		.06	.01	.07	.21	.31	.16
10	.91			3.05	.29		.08		.04	.22		.05	1.07	.23	.04
11	.78	.05		.76	.29			.11						.65	
12	.68	.07		.37	.50		.02	.15					.43		
13	1.39	.27		.11	.76		.09	.13		.12			.24	.12	.49
14	1.94	1.15		1.04	.13	.58	.23	.14		.05	.13	.06	.32	.45	
15	1.62	.09		1.60	.28	.07	.07	.10		.08	.03		.05	.60	
16	2.16	.05		.89	.01	.01	.04	.05		.01	.02	.01	.06	.05	.05
17	1.44	.59		.55		.10	.11	.05		.05	.01		.16	.05	
18	.54			.35	.31		.05	.03						.04	
19	1.20	.08		.40	.05	.16		.04		.01	.10		.60	.20	
20	1.04	.37		.80	.15		.02	.10		.04		.03	.40	.03	.06
21	1.16	.11	.04	2.22	.03	.02	.05	.04		.04		.11		.06	.01
22	1.37	.10		1.58	.07		.04	.07		.10		.04	.24	.08	
23	.78	.02		.98			.01	.07	Poor		.01	.03	.01		.07
24	1.37		.64	.99	.05		.05	.07	.49	.02		.10		.38	
25	1.85	.26	.01	.76	.23	.01	.08	.06	.08	.02	.07	.33	.08	.11	

TABLE LXXXVI

CENTRAL TENDENCIES AND DEVIATIONS FROM CENTRAL TENDENCIES IN THE DISTRIBUTION OF SCHOOL EXPENDITURES ON PERCENTILE AND COST PER PUPIL BASES

		Teachers								Total of all other expenditures		Supervision		Business Administration	
		Total expense		High School		Grades		Total							
				Average	Quartile	Average	Quartile	Average	Quartile	Average	Quart le	Average	Quartile	Average	Quartile
Percentile	Township					59.60	7.40	59.60	7.40	40.30	7.40			7.55	1.93
	Consolidated			15.88	5.70	33.28	2.25	49.16	7.03	50.84	6.57	.57		6.04	2.09
	Town			30.04	4.60	46.24	4.16	76.28	5.99	23.72	5.67	5.30	4.28	.94	.43
	City			22.60	2.69	51.45	3.44	74.05	3.38	25.95	3.38	5.96	1.68	.63	.48
Cost in dollars & cents per pupil	Township	34.06	7.20			20.31	3.99	20.31	3.99	13.75	4.78			2.58	.73
	Consolidated	44.85	5.71	7.16	1.65	14.93	3.08	22.09	4.53	22.76	3.54	.17	.11	2.74	.93
	Town	27.02	2.96	7.91	.91	12.00	2.04	19.91	2.07	7.11	1.93	1.43	1.15	.29	.06
	City	32.75	4.76	7.38	1.25	16.84	2.16	24.22	2.54	8.53	1.89	1.95	.71	.21	.07

TABLE LXXXVI (*Continued*)

		Institute fees		Transfers		Janitor service		Office and supervisors' supplies		School supplies		Janitors' supplies		Laboratory, Domestic Science and Manual Training	
		Average	Quartile	Average	Quartile	Average	Quartile	Average	Quartile	Average	Quartile	Average	Quartile	Average	Quartile
Percentile	Township	2.87	.61	10.45	6.19	1.74	.51	.17	.14	1.64	.45	.40	.09		
	Consolidated	2.14	.35	1.78	1.56	3.68	.86	.13	.12	1.46	.55	.21	.14	.65	.28
	Township	.29	?	.02	?	4.92	.52	.19	.12	1.70	1.45	.29	.18	1.00	.50
	City	.02	?	.08	?	5.88	1.03	.35	.23	1.45	.39	.25	.13	.73	.52
Cost in dollars & cents per pupils	Township	.98	.19	3.46	2.58	.61	.26	.06	.05	.68	.27	.14	.05		
	Consolidated	.97	.22	.83	.70	1.65	.56	.06	.06	.66	.21	.12	.06	.29	.25
	Township	.07		.01		1.33	.05	.48	.34	.48	.34	.08	.05	.27	.16
	City	.01		.03		1.92	.42	.13	.08	.49	.15	.08	.04	.24	.20

TABLE LXXXVI (*Continued*)

		Commencement and special lectures		Fuel		Light and power		Repairs		Additional furniture		Rent		Printing and advertising	
		Average	Quartile	Average	Quartile	Average	Quartile	Average	Quartile	Average	Quartile	Average	Quartile	Average	Quartile
Percentile	Township	.15		4.05	.62			3.06	.98	.31	.26	.23	.16	.12	.12
	Consolidated	.21	.14	4.06	2.46			1.56	.69	.42	.37	.16	.21	.19	.14
	Town	.39	.21	4.14	.97	.13	.11	3.06	1.92	.50	.56	.06	?	.20	.12
	City	.11	.11	1.18	.34	.63	.34	2.57	1.13	.65	.40	.19	.12	.22	.10
Cost in dollars & cents per pupil	Township	.05	.05	1.37	.42			1.04	.41	.11	.09	.07	.06	.04	.03
	Consolidated	.10	.11	1.82	.60			.71	.27	.19	.18	.07	.10	.01	.07
	Town	.10	.05	1.12	.36	.04	.03	.84	.43	.13	.12	.02	?	.05	.03
	City	.04	.04	1.26	.39	.20	.12	.84	.71	.21	.13	.06	.03	.07	.04

TABLE LXXXVI (*Continued*)

		Census		Transportation of pupils		Freight, express and drayage		Telegraph and postage		Telephone		Insurance		Reference and library books		Miscellaneous	
		Average	Quartile	Average	Quartile	Average	Quartile	Average	Quartile	Average	Quartile	Average	Quartile	Average	Quartile	Average	Quartile
Percentile	Township	.39	.36	6.43	4.67	.13	.11	.04	.04			.66	.52	.15	.13	.26	.07
	Consolidated	.12	.15	26.45	5.74	.19	.14	.14	.02	.17	.09	.78	.71	.29	.33	.11	.03
	Town	.19	.10	.19	?	.12	.09	.03	.01	.07	.06	.82	.86	.62	.57	.25	.09
	City	.25	.08		?	.16	.09	.04	.03	.13	.10	.77	.47	.48	.33	.24	.14
Cost in dollars & cents per pupils	Township	.13	.11	2.24	1.00	.04	.04	.01	.01			.21	.17	.05	.11	0	?
	Consolidated	.05	.06	11.51	2.43	.08	.08	.01	?	.04	.04	.36	.39	.13	.16	.05	.01
	Town	.05	.03	.21	?	.02	.03	.01	?	.02	.02	.24	.23	.18	.08	.07	.03
	City	.08	.03			.05	.03	.02	.01	.05	.03	.29	.18	.16	.12	.08	.04

TABLE LXXXVII

STATISTICS SHOWING THE RELATION OF TOTAL COST PER PUPIL TO THE AMOUNT SPENT FOR TEACHERS' SALARIES, WEALTH PER CAPITA, AND TAX LEVIES IN TOWNSHIPS WITH DISTRICT SCHOOLS

Number of township	Total cost per pupil	Per cent of total cost spent for teachers' salaries	Per cent spent for all other purposes	Wealth per capita	Tax levy per $100		
					Tuition	Special	Total
19	$73.84	72.2	27.8	$4204	$0.15	$0.25	$1.98
20	61.41	74.2	25.8	4475	.20	.20	1.92
29	54.44	40.9	59.1	5481	.22	.25	1.78
30	49.51	57.3	42.7	4184	.30	.24	1.80
27	45.08	53.9	46.1	4483	.19	.22	1.80
14	44.01	57.7	42.3	2893	.20	.20	1.63
23	39.54	61.1	38.9	3588	.26	.22	1.72
25	39.30	68.9	31.1	5794	.25	.10	1.94
Average	50.89	60.9	39.2	4388	.21	.21	1.82
18	19.35	69.2	30.8	1171	.25	.40	2.56
2	19.79	69.7	30.3	1835	.40	.50	2.77
3	21.06	67.7	32.3	2208	.30	.20	2.36
21	21.27	59.3	40.7	4674	.16	.12	2.36
7	22.91	62.4	37.6	2205	.30	.30	2.42
5	24.35	70.1	29.9	971	.25	.15	2.24
10	24.57	66.7	33.3	2527	.25	.15	2.02
6	24.78	72.1	27.9	1677	.32	.40	2.82
Average	22.26	67.2	32.8	2158	.28	.28	2.43

ers' salaries and that the lower group not only has less wealth per capita, but also a smaller levy for tuition and special school purposes, yet the total tax levy for the lower group exceeds by seventeen cents the average levy for the higher group. While there is a direct relation between the amounts of wealth per capita and the cost per pupil in townships with district schools, no such relationship prevails in the cost of consolidated schools. In the higher group of townships an average of $6.51 more is spent than the average for the group, while the lower group spends an average of $6.31 less than the average for the group, but this variation is offset, as was the case of township with district schools, by a greater per cent of the total amount of the lower group of corporations being spent for teachers' salaries than in the higher group. While the higher group spent 3.5 per cent less than the average for the entire group for teachers' salaries, the lower group spent 4.1 per cent more than the average for the entire group. The average wealth per capita, how-

ever, for the higher group exceeds the average for the entire group $218.00, but the average for the lower group exceeds the average for the entire group $305.00. The tax levy for tuition purposes of the higher group was at the maximum fifty cents on the hundred dollars, while the average for the lower group was only thirty-seven cents on the hundred dollars and the tax levy of the special school fund of the higher group was fifty-two cents, while the levy for the lower group was thirty-nine cents on the hundred dollars.

TABLE LXXXVIII

STATISTICS SHOWING THE RELATION OF TOTAL COST PER PUPIL TO THE AMOUNT SPENT FOR TEACHERS' SALARIES, WEALTH PER CAPITA, AND TAX LEVIES IN TOWNSHIPS WITH CONSOLIDATED SCHOOLS

Number of township	Total cost per pupil	Per cent of total cost spent for teachers' salaries	Per cent spent for all other purposes	Wealth per capita	Tax levy per $100		
					Tuition	Special	Total
11	$57.35	49.8	50.2	$7530	$0.20	$0.40	$1.60
15	56.27	54.3	45.7	3938	.35	.55	2.32
12	55.60	35.9	64.1	7178	.19	.50	1.65
2	52.58	51.6	48.4	6041	.25	.49	2.20
7	50.59	54.8	45.2	3892	.30	.50	1.99
6	49.09	50.9	49.1	4309	.31	.50	2.06
Average	53.58	49.5	50.5	5481	.27	.49	1.97
14	32.70	42.2	57.8	3459	.30	.50	2.25
3	32.90	53.8	46.2	3995	.23	.50	2.12
4	34.42	39.4	60.6	3735	.15	.50	2.36
9	38.58	51.8	48.2	6117	.18	.33	1.84
13	40.60	61.5	38.5	3961	.31	.50	2.02
8	41.81	49.7	50.3	3820	.37	.40	2.00
Average	36.85	49.7	50.3	4181	.26	.46	2.10

These facts with reference to the town schools go to show that while the schools are spending a less amount per capita for school purposes, yet they spend a relatively larger amount for teachers' salaries, the smaller amount paid by the lower group is due in most part to the unwillingness on the part of the towns to levy a tax equal to that of the higher group.

The average cost per pupil in the higher group of city schools is $38.68 and exceeds the average for the entire group, on the basis of cost per pupil $5.93, while the average for the lower group is $27.17 which is $5.58 less than the average for the entire group,

yet the per cent of the entire cost devoted to teachers' salaries in the lower group is less than the average for the entire group, as is also the average for the higher group. When we compare the wealth per capita for the two groups, we find that the average for the higher group exceeds the average for the entire group $347.00, while the average for the lower group is $480.00 less than the average for the entire group. This difference in wealtth per capita is offset to a large extent by the increase in the tax levy which for the

TABLE LXXXIX

STATISTICS SHOWING THE RELATION OF TOTAL COST PER PUPIL TO THE AMOUNT SPENT FOR TEACHERS' SALARIES, WEALTH PER CAPITA, AND TAX LEVIES IN TOWN SCHOOLS

Number of town	Total cost per pupil	Per cent of total cost spent for teachers' salaries	Per cent spent for all other purposes	Wealth per capita	Tax levy per $100		
					Tuition	Special	Total
3	$41.54	69.5	30.5	$1905	$0.50	$0.65	$3.14
26	35.58	73.3	26.7				
23	34.14	59.9	40.1	1654	.50	.50	2.77
19	32.95	84.6	15.4		.50	.50	3.14
21	32.34	76.3	23.7	1583	.50	.50	3.52
20	31.59	70.0	30.0	1314	.50	.50	3.42
7	30.12	72.3	27.7	1508	.50	.73	3.14
4	30.00	76.8	23.2	1941	.50	.28	2.61
Average	33.53	72.8	27.2	1650	.50	.52	3.11
10	16.34	83.2	16.8	1043	.07	.10	1.50
6	18.92	82.1	17.9	2419	.40	.25	2.29
17	19.15	84.6	15.4	1234	.45	.55	2.25
9	20.48	81.9	18.1	1326	.50	.50	2.18
12	22.75	80.9	19.1	3027	.20	.30	1.93
8	23.58	77.1	22.9	1060	.50	.65	3.23
18	25.18	68.5	31.5	2293	.35	.50	3.16
16	25.28	84.5	15.5	1492	.50	.30	3.22
Average	21.71	80.4	19.6	1737	.37	.39	2.47

lower group is three cents more than the average for the higher group for tuition purposes and six cents more than the average for the upper group. A similar relationship exists with reference to special school funds. Taking all these things into consideration it is safe to conclude that most corporations with a limited wealth per capita so distribute their school funds that the amount for teachers' salaries more nearly equals the amount spent for this purpose by the wealthier communities, and economize in other expenditures but are not able to pay as large salaries as the wealthier communities.

We have seen that corporations spending less than the average for the entire group per capita for schools distribute the school expenditures in such a way as to minimize the difference in the amount paid for teachers' salaries by these corporations and the amount paid by the corporations spending a much larger amount per capita for school purposes. In order to do this these corporations with limited means must necessarily economize in all other

TABLE XC

STATISTICS SHOWING THE RELATION OF TOTAL COST PER PUPIL TO THE AMOUNT SPENT FOR TEACHERS' SALARIES, WEALTH PER CAPITA, AND TAX LEVIES IN CITY SCHOOLS.

Number of city	Total cost per pupil	Per cent of total cost spent for teachers' salaries	Per cent spent for all other purposes	Wealth per capita	Tax levy per $100		
					Tuition	Special	Total
14	$46.50	71.5	28.5	$1567	$0.40	$0.45	$3.86
7	39.80	73.4	26.6	2782	.40	.23	2.79
24	39.10	73.5	26.5	1584	.40	.50	3.48
9	37.31	70.3	29.7	2188	.40	.64	3.06
10	37.22	69.3	30.7	2260	.38	.37	3.06
20	36.88	75.6	24.3	2378	.35	.45	3.23
25	36.41	72.4	25.6	3025	.24	.45	2.46
5	36.18	76.4	23.6	2288	.24	.50	2.83
Average	38.68	72.8	27.0	2259	.35	.45	3.09
6	24.33	78.5	21.5	1101	.50	.50	3.12
22	24.54	61.4	38.6	1413	.37	.50	3.90
17	26.32	68.4	37.6	1861	.50	.45	2.96
23	27.45	76.6	23.4	1415	.38	.35	3.51
4	28.03	76.9	23.1	1385	.50	.50	3.52
16	28.32	66.9	33.1	1704	.50	.50	3.12
12	28.84	87.0	13.0	965	.10	.50	3.00
19	29.57	69.6	30.4	1614	.45	.45	3.67
Average	27.17	73.2	26.6	1432	.41	.47	3.35

expenditures for school purposes. This necessarily gives rise to the question, "What is the distribution of the additional money spent by the school corporations in the different types which spend more than the average for the entire group?" In order to answer this question eight corporations from townships with district schools, towns, and cities, and six corporations from townships with consolidated schools were selected in the order of the amount spent for all purposes except teachers' salaries, beginning with the highest. In like manner an equal number of corporations were selected be-

TABLE XCI

RELATION OF TOTAL COST PER PUPIL TO COST FOR TEACHERS' SALARIES, WEALTH PER CAPITA AND TAX LEVIES

	Group	Total cost per pupil		Per cent of total cost spent for teachers' salaries		Per cent of cost spent for other purposes		Wealth per capita		Tax Levy					
										Tuition		Special		Total	
		Average	Deviation from average	Average	Deviation from average	Average	Deviation from average	Average	Deviation from average	Average	Deviation from average	Average	Deviation from average	Average	Deviation from average
Township District Schools	Higher	$50.89	$16.83	60.8	1.2	39.1	−1.2	$4388	$1137	$0.21	−.01	$0.21	−.03	$1.82	−.16
	Total	34.06		59.6		40.3		3251		.22		.24		1.98	
	Lower	22.26	−11.8	67.2	7.6	32.8	−7.5	2158	−1093	.28	.06	.28	.04	2.43	.45
Consolidated Schools	Higher	53.58	5.53	49.5	.3	50.5	−.3	5481	1069	.27	.02	.49	.04	1.93	−.36
	Total	48.05		49.2		50.8		4412		.25		.45		2.29	
	Lower	36.85	−11.2	49.7	.5	50.3	−.5	4181	−231	.26	.01	.46	.01	2.10	−.19
Town Schools	Higher	33.53	6.51	72.8	−3.5	27.2	3.5	1650	218	.50	.05	.52	.07	3.11	.17
	Total	27.02		76.3		23.7		1432		.45		.45		2.94	
	Lower	21.71	−6.31	8.04	4.1	19.6	−4.1	1737	305	.37	−.08	.39	−.06	2.47	−.47
City Schools	Higher	38.68	5.93	72.8	−1.2	27.0	1.2	2259	347	.35	−.03	.45	−.04	3.09	−.16
	Total	32.75		74.0		26.0		1912		.38		.49		3.25	
	Lower	27.17	−5.58	73.2	−.8	26.8	.8	1432	−480	.41	.03	.47	.−02	3.35	.10

ginning with the lowest. The amount spent by these corporations for the more important items, such as business administration, janitors' services, supplies, fuel, repairs, census, transportation of pupils, insurance, and reference books, were tabulated as given in Tables XCII, XCIII, XCIV, and XCV. The central tendencies of each selected group and the deviations of the same from the central tendencies of the entire group are given in Table XCVI.

A study of the results given in the above table shows no unusual variations. The average for the higher group of townships with district schools exceeds the average for the entire group of all expenditures for school purposes, exclusive of teachers' salaries, $6.25, while the average for the lower group is $6.33 less than the average for the entire group, which means that the higher group spends about three times the amount of money for current expenses as does the lower group. When we study the distribution of the money among the items mentioned, we find that practically the same ratio prevails in business administration, school supplies, and repairs. The higher group spends more for transfers and transportation of pupils, but spends about the same amount for school census and reference and supplementary books. The amount spent for janitor service by the higher group exceeds the amount spent by the lower group about fifty per cent. The same ratio prevails in the amount spent for fuel.

The ratio of the average of the two selected groups for townships with consolidated schools is much smaller than the ratio for the townships with district schools. The average for the higher group is $29.41 or $6.65 more than the average for the entire group, while the average for the lower group is $18.32 or $5.56 less than the average for the entire group; that is, the average of the higher group exceeds the average of the lower group about sixty per cent. The average of both the higher and the lower groups exceeds the average for the entire group in business administration and fuel. The amount spent for transfers by the higher group is $1.02 more than the average for the entire group, while the average for the lower group is $0.18 less than the average for the entire group. A similar relationship but not quite so pronounced will be observed in the amounts spent for supplies, repairs, and transportation of pupils.

When we consider the relationship of the two groups of town schools, much the same condition prevails as in the other types of

schools considered. While the average for the higher group is little more than twice the average spent for the lower group, considerable variation is observed in the different items of expenditures. The upper group spends relatively more for janitor service, supplies, repairs, and reference and supplementary books, but the amount spent by the lower group for fuel and insurance almost equals that spent by the higher group and is greater than the average for the entire group. The average for the higher groups of city schools varies much less from the central tendency of the entire group than do the higher groups in the other types considered.

Taking all these facts into consideration, it will be observed that more money for the township and consolidated schools means relatively larger expenditures for business administration, while a greater amount of money in town and city schools does not affect the cost for this purpose. A greater amount of money means a relatively greater amount spent for janitor service, supplies, laboratory, manual training and domestic science supplies, and repairs, but does not necessarily mean a greater amount of money for fuel, school census, or insurance.

TABLE XCII

DISTRIBUTION OF CURRENT EXPENSES IN DOLLARS AND CENTS IN THE TWO GROUPS OF TOWNSHIPS WITH DISTRICT SCHOOLS, SELECTED ON BASIS OF TOTAL COST PER PUPIL FOR ALL PURPOSES EXCEPT TEACHERS' SALARIES

Number of township	Total of all expenditures except teachers' salaries	Business administration	Transfers	Janitor services	Supplies	Fuel	Repairs	Census	Transportation	Insurance	Reference and supplementary books
29	32.16	3.17	10.77	.78	2.40	1.28	1.00	.25	9.89	.15	.25
26	24.53	1.68	8.47	.83	1.36	1.28	1.34	.11	8.11	.22	
19	23.14	6.72	1.18	.17	.23	2.43	1.03		7.51	.11	
27	21.28	2.95	5.71	.79	.83	1.99	1.56	.15	4.85	.36	.01
30	21.12	6.06	2.25	.88	.79	1.79	1.16	.55	4.99	.72	.14
14	18.61	4.34	5.41	1.38	1.04	1.10	2.98		.05		.07
28	18.06	1.93	6.93	.65	1.96	1.76	1.25	.12	1.21		
11	17.08	2.36	10.69	0	.73	.61	1.29	.32		.12	.06
Average	22.00	3.65	6.43	.68	1.17	1.53	1.45	.16	4.58	.21	.07
18	5.90	1.76		.48	.14	.81	.35	.13	.91		
2	6.00	1.25		.38	.40	.73	1.15	.08	.40	.28	
3	6.85	2.05	.69	.62	.17	.98	.14		1.13		
6	7.10	1.48	.13	.68	.41	1.40	.91	.05	.79	.15	.09
5	7.26	2.43	1.78	.55	.43	.83	.39	.16			.06
9	7.99	2.00	1.17	.65	.15	1.55	.16	.09	.59		.23
17	8.01	1.94		.68	1.61	.58	.72	.55	1.28	.20	.10
7	8.61	3.43	.84	.02	.53	1.78	.08	.24		.50	.12
Average	7.22	2.04	.50	.41	.48	1.08	.45	.16	.64	.15	.07

TABLE XCIII

DISTRIBUTION OF CURRENT EXPENSES IN DOLLARS AND CENTS IN THE TWO GROUPS OF TOWNSHIPS WITH CONSOLIDATED SCHOOLS, SELECTED ON BASIS OF TOTAL COST PER PUPIL FOR ALL PURPOSES EXCEPT TEACHERS' SALARIES

Number of township	Total of all expenditures except teachers' salaries	Business administration	Transfers	Janitor services	Supplies	Fuel	Repairs	Census	Transportations	Insurance	Reference and supplementary books	Laboratory, Manual Training, Domestic Science
1	36.49	4.00	5.46	1.46	.54	1.33	.26		20.41		.07	
12	35.60	2.96	4.14	2.07	.93	3.06	.72	.16	16.39	.76	.57	
11	28.93	3.28		1.92	1.81	2.03	.84		15.74	.74		.07
17	25.83	3.45		1.76	1.21	2.38	1.25		11.37	.95	.51	.54
2	25.37	4.60	1.51	.56	.33	2.35	.83		11.33	1.86	.12	
6	24.24	2.12	.07	2.16	.65	2.43	.86	.08	13.68	.37	.04	
Average	29.41	3.40	1.86	1.66	.91	2.26	.79	.04	14.82	.78	.22	.10
3	15.23	2.06	.12	.60	.61	1.37	.68	.04	8.52			.08
13	15.78	4.00		1.36	.44	.83	.12		6.57	.28	.24	.32
14	17.29	3.63	.75	1.37	.63	1.16	.35	.16	7.25		.16	.36
9	18.67	2.31	1.30	1.38	.44	2.34	.22	.13	8.98	.05		.29
4	21.46	2.05	1.24	.82	.77	1.74	1.14		11.73	.32		
16	22.11	3.09	.50	1.83	.73	3.61	.64	.17	9.19	.95	.51	.12
Average	18.32	2.86	.65	1.23	.60	1.84	.53	.08	8.71	.27	.15	.20

TABLE XCIV

DISTRIBUTION OF CURRENT EXPENSES IN DOLLARS AND CENTS IN THE TWO GROUPS OF TOWN SCHOOLS, SELECTED ON BASIS OF TOTAL COST PER PUPIL FOR ALL PURPOSES EXCEPT TEACHERS' SALARIES

Number of town	Total of all expenditures except teachers' salaries	Business administration	Transfers	Janitor services	Supplies	Fuel	Repairs	Census	Transportations	Insurance	Reference and supplementary books	Laboratory, Manual Training, Domestic Science
23	13.99	.32		1.30	1.32	1.08	1.08	.06		.15	1.45	2.53
3	12.57	.21		1.80	1.28	.92	2.45	.30				
24	12.13	.48		2.15	2.48	2.06	1.64	.05			.03	
70	9.67	.21		1.53	.31	.92	.71	.04		.40	.09	.30
5	9.62	.41		2.16	.72	1.34	.44	.09		.48	.10	.67
26	9.51	.46		1.90	.86	1.75	1.64	.05		1.13		.04
7	8.38	.21		1.51	1.87	1.46	.38	.02		.48	.02	.42
11	8.06	.25		1.17	.17	.54	1.32			.12		
Average	10.49	.32		1.69	1.13	1.26	1.21	.08		.34	.21	.50
17	2.93	.11		.95	.20	.63	.40	.03		.41	.01	
9	3.72	.06		1.20	.25	.90	.17	.02		.60	.30	.11
19	5.08			1.19	.25	1.84	.30	.06				
2	5.36	.54		.52	.19	.68	2.14	.08			.26	
8	5.39	.20	.14	1.17	.12	.96	.84	.05		.67	.54	.31
22	5.77			1.02	.79	.96	1.14	.03		.48	.01	
16	5.92	.25	.02	1.14	.36	1.44	.43			.09	.16	.48
25	6.01	.19		1.05	1.63	1.06	.67	.04		.24		
Average	5.02	.17	.02	1.03	.47	1.03	.76	.04		.31	.16	.11

TABLE XCV

DISTRIBUTION OF CURRENT EXPENSES IN DOLLARS AND CENTS IN THE TWO GROUPS OF CITY SCHOOLS, SELECTED ON BASIS OF TOTAL COST PER PUPIL FOR ALL PURPOSES EXCEPT TEACHERS' SALARIES

Number of city	Total of all expenditures except teachers' salaries	Business administration	Janitor service	Supplies	Fuel	Repairs	Census	Insurance	Reference and supplementary books	Laboratory, Manual Training, Domestic Science
14	12.24	.13	3.64	.77	1.94	1.04	.14	.32	.45	.37
10	11.42		2.08	.75	.91	3.05		1.07	.23	.39
9	11.00	.29	1.98	1.07	1.62	.41	.09	1.03	.29	.02
15	10.87	.26	1.65	1.04	1.62	1.60	.10	.05	.60	.10
7	10.72	.22	3.02	.83	2.29	1.23	.25	.17	.25	.28
24	10.26	.25	1.95	.79	1.37	.99	.07		.38	.47
5	10.01	.29	1.77	.89	1.31	1.42	.08	.02		.48
22	9.36	.23	1.08	.65	1.37	1.58	.07	.24	.08	.87
Average	10.74	.21	2.05	.85	1.55	1.42	.10	.36	.28	.37
12	3.81	.22		.13	.68	.37	.15	.43		.01
6	5.23	.17	1.44	.41	.57	.13		.02		.19
11	6.37	.32	1.22	.37	.78	.76	.11		.65	
4	6.41	.16	1.37	.61	.79	.72	.04	.27	.17	
23	6.50	.30	1.91	.52	.78	.98	.07	.01		.62
18	7.29	.14	1.52	.31	.54	.35	.03		.04	.09
1	7.34	.32	1.66	.55	1.07	.21		.43	.07	.28
3	7.41	.02	1.50	.77	.84	.17		.15	.15	.16
Average	6.29	.21	1.33	.46	.76	.46	.05	.16	.14	.17

TABLE XCVI

CENTRAL TENDENCIES OF THE SELECTED GROUP OF CORPORATIONS IN EACH TYPE AND DEVIATIONS OF EACH FROM THE CENTRAL TENDENCIES OF THE ENTIRE GROUPS

	Group	Total expenditures for all purposes except teachers' salaries		Business administration		Transfers		Janitor service		Supplies		Laboratory, Manual Training Domestic Science	
		Average	Deviation from average	Average	Deviation from average	Average	Deviation from average	Average	Deviation from average	Average	Deviation from average	Average	Deviation from average
Township	Higher	22.00	6.25	3.65	1.07	6.43	2.97	.68	.07	1.17	.40		
	Total	13.75		2.58		3.46		.61		.77			
	Lower	7.22	−6.53	2.04	−.54	.50	−2.94	.41	−.20	.48	−.29		
Consolidated	Higher	29.41	6.65	3.40	.66	1.86	1.02	1.66	.01	.91	.07	.10	−.19
	Total	22.76		2.74		.83		1.65		.84		.29	
	Lower	18.32	−5.56	2.86	.12	.65	−.18	1.23	−.42	.60	−.24	.20	−.09
Town	Higher	10.49	3.38	.32	.07			1.69	.33	1.13	.53	.50	.23
	Total	7.11		.25		.01		1.33		.63		.27	
	Lower	5.02	−2.09	.17	−.08	.02		1.03	−.30	.47	−.16	.11	−.16
City	Higher	10.74	2.21	.21				2.05	.13	.85	.15	.37	.13
	Total	8.53		.21				1.92		.70		.24	
	Lower	6.29	−2.24	.21				1.33	−.39	.46	−.24	.17	−.07

TABLE XCVI (*Continued*)

	Group	Fuel		Repairs		Census		Transfers		Insurance		Reference and supplementary books	
		Average	Deviation from average	Average	Deviation from average	Average	Deviation from average	Average	Deviation from average	Average	Deviation from average	Average	Deviation from average
Township	Higher	1.53	.16	.45	.41	.16	.03	4.58	2.34	.21		.07	.02
	Total	1.37		.04		.13		2.24		.21		.05	
	Lower	1.08	−.29	.45	−.99	.16	.03	.64	−1.60	.15	−.06	.07	.02
Consolidated	Higher	2.26	.44	.79	.08	.04	−.01	14.82	3.31	.78	.42	.22	.06
	Total	1.82		.71		.05		11.51		.36		.16	
	Lower	1.84	.02	.53	−.18	.08	.03	8.71	−2.80	.27	−.09	.15	−.01
Town	Higher	1.26	.14	1.21	.37	.08	.03			.34	.10	.21	.03
	Total	1.12		.84		.05				.24		.18	
	Lower	1.03	.09	.76	−.08	.04	−.08			.31	.07	.16	−.02
City	Higher	1.55	.29	1.42	.58	.10				.36	.07	.28	.12
	Total	1.26		.84		.08				.29		.16	
	Lower	.76	−.50	.46	−.38	.05				.16	−.13	.14	−.02

CHAPTER IX

Summary and Conclusion

Having presented the data and determined the facts relative to the different phases of school work in the four types of schools mentioned, let us now consider to what extent the facts revealed justify some of the claims which have been made for the consolidated schools and at the same time consider some changes that might be made which would result in the material improvement of the schools of all types.

In the quotation given at the beginning of this study, we find the statement that consolidation gives an incentive for permanent improvement, beautifying the school grounds, and providing modern sanitation and schoolroom equipment. The facts revealed in this study justify this statement. The typical rural school is housed in a rectangular building that is lighted on opposite sides. The building is entered directly from the outside, heated by means of a wood or coal stove located in the center of the room, has no means of ventilation except doors and windows, shows little or no evidence of attempts at decorations, is equipped with non-adjustable desks, twenty per cent of which are double desks, provided with unsanitary water supply and outbuildings, and has very meager library faciiities. On the other hand the typical consolidated school is housed in a building that is modern in all its appointments, even surpassing the city and town schools in heating and ventilating equipments, lighting, and the number of adjustable desks supplied, and ranks second to city schools in sanitary water supply and toilet facilities.

Another claim made for consolidation is that it will enable a rural community to attract and hold better trained and more experienced teachers. When we examine the facts presented, we find that sixty-seven per cent of the township district schools are taught by teachers with twenty-four weeks or less of professional training. One in every four schools is taught by an inexperienced teacher, and more than fifty per cent are taught by teachers with two or less years of experience. Approximately fifty per cent of teachers are in class A and receive an average minimum salary of $2.36 per day. On the other hand only fotry per cent of the teachers in consolidated schools have twenty-four weeks or less

of professional training, and only one in fifteen is an inexperienced teacher. The average training of all the teachers in consolidated schools is forty-two weeks, while the average training of the teachers in townships with district schools is twenty-eight and eight-tenths weeks. Consolidated schools have less than half the number of class A teachers we find in the township district schools, while they have almost twice the number of class C teachers. The salary of class A teachers in consolidated schools is $2.50 per day. which is $.14 more than is received by class A teachers in township district schools and the average salary for class C teachers in consolidated schools is $3.53, which is $.17 more than is received by class C teachers in township district schools. Thus we see that consolidation of schools means better trained and more experienced teachers and an increase in daily salaries. When we compare these facts with reference to training and experience of teachers in consolidated schools with the training and experience of teachers in town and city schools, we find that the teaching staff in the schools of this type surpasses the teaching staff in town schools and almost equals that found in the city schools. One fact, however, which should be emphasized is that with consolidation also comes feminization of the teaching force. In townships with district schools thirty-four and four-tenths per cent of the total teaching population were men, as compared with sixteen and six-tenths per cent in consolidated schools. Fewer men are found in consolidated schools than in the town schools, but there are almost twice as many as are found in the city schools. Thus the facts presented bear out the claim that with consolidation comes the professional improvement of teachers, longer years of service, and increase in salaries.

The facts fail to substantiate the statement made by advocates of consolidated schools that consolidation means the introduction of specially trained teachers in such subjects as agriculture, home economics, manual training, domestic science, music, and art; an enrichment of the course of study, the enlargement of the school as a factor in the community life, and the development of the social activities in the school itself. It is true that quite a number of consolidated schools are provided with special teachers or supervisors, but when we come to the question of the enrichment of the course of study we find that consolidation has not brought about the general introduction of the newer subjects, which are

peculiarly well adapted to rural life. Less than fifty per cent of the consolidated schools have made any special provision for these subjects, while nearly all have followed the lead of the schools in the larger centers by providing special teachers for music and drawing. On account of the nature of the organization and timely interest in consolidated schools, much more supervision is given the work in the schools of this type than in the township district schools, but little effective constructive supervision is found outside of the larger cities. The facts relative to the social activities both in the school itself and in the community fail to reveal any marked improvement in the consolidated schools over that found in the township district schools. Notwithstanding the fact, that consolidation makes possible the organization of a great variety of student activities that would foster and develop interests in the problems of the community, no such organizations are found. Practically every school reporting student organizations have reported an athletic association or a literary society, such as are found in the larger centers of population, while all neglect these other phases of work which would be of much greater significance. A few schools conduct corn contests, but these are also found in communities in which there are no consolidated schools. A similar situation is found with reference to the activity of the school in the life of the community. While consolidation means enlarging the school constituency sufficiently to insure community activities in the common center, the only activities found in this type have been the one or two patrons' meetings per year, such as are found in the larger centers of population. The one school making the most consistent effort to stimulate interest in problems of the community through pupil organizations and to make the school a factor in community life by initiating and directing organizations for the patrons, was not a consolidated school, but a town school with a limited number of pupils from rural communities. This was an exceptional case, as the town schools as a type are inferior to consolidated schools in these matters. While it may be said that consolidation makes possible these larger social activities of the school, our investigations conclusively show that these possibilities are not realized.

A comparison of the statistics of the different types of schools bear out in part the claim made for the superiority of consolidated schools over township district schools in increasing the school

attendance and ability to retain the pupils enrolled in school. The ratio of the enrollment to the school census of consolidated schools is 81.1 per cent as compared with 78.1 per cent for township district schools, 79.5 per cent for town schools and 61 per cent for city schools. When we consider the average daily attendance in each type, we find that while the consolidated schools excel the township with district schools and city schools, they do not equal the town schools in this particular. Two other conditions, however, need to be observed in summarizing the facts revealed, viz., consolidation is found in townships where the ratio of pupils of school age to the total population is relatively small and where the decrease in total population is less marked, and that consolidated schools are located in townships with greater wealth per capita school population. The average for the schools of this type is $4,412.00 as compared with $3,251.00 in townships with district schools. Taking the tax levies as a basis for comparison, we find that consolidation requires a greater amount of money, not only for the payment of teachers, but also for the general maintenance and operating expenses of the schools, as is shown by the tuition and special school levies of the two types of corporations. This conclusion is not only substantiated by a comparison of school expenditures, but we also observe that while this increase is due in part to the additional cost of transportation of pupils, there is also an increase in practically all items except transfers. The average cost per pupil in townships with consolidated schools is $44.85, which is 30 per cent more than the average cost per pupil in townships with district schools, 38 per cent more than the average cost per pupil in city schools, and 50 per cent more than in town schools. When we consider all these facts as well as the fact that consolidated schools are located in townships with 25 per cent greater wealth per capita, and that townships with consolidated schools spend much less money for the building and upkeep of the roads than do townships with district schools, we see at once that it is not at all feasible to adopt the policy of consolidation as the one general plan of education in rural communities, since it would be impossible to finance them under the present organization. The features in which the consolidated schools surpass the township district schools as well as the failure of the consolidated school to realize some of the things which have been claimed for it, bear out this conclusion. While the typical consolidated school is housed in a modern school build-

ing, a sufficient number of equally well equipped one-room rural school buildings have been found to indicate that these things are not dependent upon this type of organization so much as upon the education of the community to the importance of these things.

The failure of the consolidated school to realize the possibilities for the enrichment of the curriculum and to be a more vital factor in the social life of the pupils as well as the community, also show that these things are not dependent so much upon the form of organization as upon initiative and personal characteristics of the teachers in charge. We have instances reported in other states where the one-room rural school has given as much attention to the problems of the community and interests of the pupil as any larger school as well as being a genuine community center. While it must be conceded that consolidation makes possible a greater consideration of these things, it must also be acknowledged that emphasis on the form of organization is not enough to attain these desired results. Too much attention in the past has been given to form and not enough to the real work of consolidated schools.

The results of this investigation also show the need of further legislation concerning sanitary conditions of buildings now in use. While the law provides that all buildings remodeled and erected must conform to certain standards, it should also be provided that within a specified time all buildings used for school purposes should measure up to these standards. It has been shown that the two types of schools needing the greatest consideration, the township district schools and the town schools, would be greatly aided should the state adopt the plan of distribution of state funds on the combination basis instead of the census basis. The results of this investigation show, however, that the adoption of this plan of distribution would be inadequate to meet the needs of all schools, so should be supplemented by a law requiring a greater tax levy by the state for school purposes to be distributed on the combination basis suggested. This would eliminate the necessity of granting special state aid to a large per cent of schools that now find it necessary to avail themselves of this special privilege, which has a certain tinge of charity that is displeasing to some communities. If there should be added to the increase in state tax levy for school purposes and the combination basis of distribution, a provision for special subsidies to stimulate local communities to provide superior equipment and initiate plans of correlation of the work of the school

and community problems, which would result in a knowledge and appreciation of rural life and its opportunities, a good beginning will have been made toward the solution of many of the problems of rural education. It would also provide for an equality of educational advantages and an equitable distribution of the burden of the schools throughout the state.

The necessity for reorganization of the administration of rural and town schools is emphasized by the facts revealed by this investigation. While consolidation as a policy of rural education has its advantages and possibilities, these are frequently offset by the criticisms and difficulties encountered in administration under the present organization. When we find a number of schools paying as much for the transportation of pupils as is paid teachers for instruction and especially when we find a township paying more than twice as much for transportation as for instruction, we begin to wonder if the interests and welfare of the pupils have not been sacrificed for the sake of carrying out an idea. It is generally recognized and is verified by the expenditures of the different corporations for transfers and transportation of pupils that the civil township is not a natural unit for consolidation. It frequently happens that a small village or area of dense population is quite removed from the center of the civil township, so that to combine all the schools of that corporation into one, involves long hauls that are objectional to parents as well as involving an unreasonable expenditure. It also deprives these remote communities which have the greatest needs of much of the influence that a consolidated school should have on that community. Should the schools be reorganized on a basis that would eliminate civil township boundaries and make it possible to plan consolidation of schools with reference to centers of population, topography of the country, and condition of the roads, many of these objections would be eliminated.

In comparing the expenditures in the different types of schools, it was pointed out that the business administration in the townships with both district and consolidated schools cost ten to twelve times as much as the business administration of schools in towns and cities. This is due in part to the fact that the office of township trustee is a political office which is supposed to compensate the incumbent for trouble and expense in securing it. This, however, is not the most serious phase of the situation from an educational standpoint. The township trustee is not selected on account of

qualifications or interest in the schools, but either on account of his political leadership or association with some political leader. It also frequently happens that the township trustee is aspiring for some county office and wishes to economize at the expense of the schools in order to make a record that will command support for the higher office. These facts emphasize the need of a reorganization that will eliminate waste and place the schools in charge of men qualified for the responsibilities and interested in the schools instead of leaving them in the charge of men interested primarily in the financial returns and political prestige gained through the administration of this office.

A third reason for the reorganization of the rural schools is found in the need for a more adequate supervision of township districts, consolidated, and town schools. Under the present organization and laws it is impossible for the county superintendent to do any constructive supervision on account of the number of teachers under his jurisdiction and multiplicity of duties. While the township district schools suffer most from lack of supervision, a reorganization which would insure a more adequate supervision of consolidated and town schools and at the same time provide for a continuity of purpose in the township district schools is greatly needed. As was pointed out in a preceding chapter, the principals of the smaller schools are selected with reference to ability to teach high school subjects rather than training and experience in supervising grade work.

It has been shown that consolidation as a policy of rural education is somewhat limited in its application under present conditions. While a reorganization would make possible a wider adoption of this policy there would still remain a great number of one-room rural schools that are entitled to the educational advantages enjoyed by the consolidated schools. Under the present organization, where consolidation is under way, it is commonly thought that little can be done for the improvement of the township district schools, so that they are neglected with the idea that they may ultimately become a part of the consolidated school notwithstanding the difficulties that would be involved. There is need for a reorganization that will insure the same consideration and definitely planned efforts to meet the needs of these communities as obtains where schools have been consolidated.

A negative criticism of any system of schools is worth little unless followed by constructive suggestions. The problems indicated above can best be met by making the county the unit of school organization. While it is not our purpose to give the details of such a reorganization, it would involve the following:

a. The election of a county board of education, composed of seven to nine members, which would have the management of the educational affairs of the county. The members should be selected for a term of five years at a special election with total disregard for political affiliations. They may be elected from districts or from the county at large. The duties and powers of this county board of education should be similar to the duties and powers of the city board of education under our present organization. Only traveling expenses and nominal salary should be paid each member.

b. The selection of a county superintendent by the county board of education, who would be the chief executive of the board. The county board should be free of all restrictions in making its selection except certain qualifications as to training and experience that should be required by the state board of education for eligibility to this position. The salary should be sufficient to command the continued services of strong well-qualified men for this important office.

c. The county superintendent should be relieved of all clerical duties and the certification of teachers and have in addition to the powers now exercised, the power to nominate and place all teachers and assistants and to exercise supervisory power over all appointments and work of the county board of education.

d. The county board should elect a secretary or business manager whose duties shall be to act as secretary of the board, to attend to all clerical and financial work of the office under the direction of the county superintendent and the county board of education, as well as to look after all other matters of this nature, which usually fall to such officials.

e. There should be provision made for a special supervisor in each of the special subjects such as agriculture, household art, manual training, music, art, etc., for every thirty teachers or fraction thereof in the county and an assistant superintendent in all counties employing more than fifty teachers.

f. All towns should be encouraged to disband local organizations and become parts of larger school units with the towns as the

centers. All towns in which the principal devotes less than half his time to supervision, all towns that do not provide special supervisory staff equivalent to that provided by the county organizations and all towns that receive one-half or more of tuition receipts from the common school fund and transfers, should be under the direction and supervision of the county organization.

g. Provision should be made whereby a certain per cent of the salaries of the county superintendent, assistant superintendent, and supervisor would be paid from state funds before these funds are distributed among the counties of the state.

The adoption of the suggestion made, as a part of the school code of the state and the reorganization of the school with the county as a unit, as outlined above, may seem to many to be utopian and too complicated to be of practical value. It should be kept in mind, however, that the present system with its changing, shifting, teaching population, unprofessional and oftentimes insufficient business administration and lack of supervision, does not provide an adequate basis on which to build an organization that will meet the present needs. If any real progress is to be made it is imperative that we have a strong centralized school organization with educational experts in charge. The changes suggested are not utopian and impractical, since many of them are in actual operation in other states. The United States Commissioner of Education has just issued a rural school letter describing the undivided districts in Minnesota, which have many of the characteristics of the organization suggested above. His closing statement is as follows:

"There is close supervision of the rural schools. A corps of supervisors go from the central school at Grand Rapids to all the villages and one-teacher schools. Thus, for example, the manual training instructor, the domestic science teacher, and agricultural supervisor, or their assistants, spend a certain number of hours each week with all the schools in the outlying districts. This means that the teacher of the little school is under the immediate direction of supervisors of the high school at Grand Rapids. It means satisfactory supervision and intelligent and efficient work."

It should also be kept in mind that Indiana has already taken some steps in the direction suggested by providing a county agent who devotes his time to advancing agriculture, domestic science, and industrial work in the county. On account of lack of unity of purpose and the amount of territory he has to cover, it will be dif-

ficult to accomplish the things that could be accomplished under more favorable conditions. A reorganization which would more definitely correlate this work with the regular work of the school and provide for supervisors in related activities who would be free during the summer months to assist in directing practical work in the homes of the pupil as well as to assist in developing community interests and activities, would make possible great progress along these lines.

The effect of such a reorganization would be observed in all schools, but would be most pronounced in the two types, the township district and town schools, which have the greatest needs. It would result in better equipment, efficient business administration, more permanent teaching population, continuity of educational policy, adequate supervision and professional leadership, which are essential for real progress.

VITA

Lester Burton Rogers, born near Seymour, Indiana, November 4, 1875; received his elementary education in the public schools of his native state; completed the work of Moores Hill Academy in 1893; entered Moores Hill College in 1895 and graduated with the B.S. degree in 1899. His post-graduate work consists of one year (1902-1903) in Chicago University and two years (1906-1907 and 1910-1911) in Columbia University. He received the Master of Arts degree from Columbia in 1907 and was awarded a "Research Scholarship" in Teachers College for the year 1910-1911. His published works consist of a *Laboratory Manual for Physics,* a series of articles on *Physical Nature-study* and a *Syllabus for Secondary Education.*

LIBRARY OF CONGRESS
0 022 165 368 3